Operating Instructions

SX-P930
STEREO RECEIVER

SP-P930
SOUND FIELD PROCESSOR

PD-P930M
MULTI-PLAY COMPACT DISC PLAYER

CT-P1030WR
STEREO DOUBLE CASSETTE DECK

S-P930V
SPEAKER SYSTEM

COMPACT disc DIGITAL AUDIO

Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

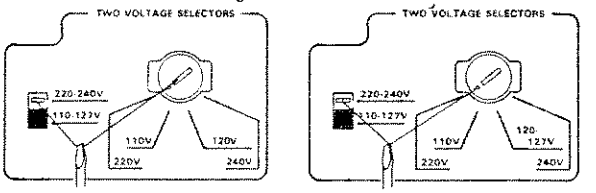
WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION
- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- The use of optical instruments with this product will increase eye hazard.

TWO VOLTAGE SELECTOR SWITCHES

Only multi-voltage models are provided with these switches. U.S., Canadian, European, U.K. and Australian models are not provided with these switches.
Mains voltages in Saudi Arabia are 127V and 220V only. Never use this model with a 110V setting in Saudi Arabia.
The line voltage selector switches are on the rear panel. Before your model is shipped from the factory, these switches are set to the power requirements of the destination. Check that they are set properly before plugging the power cord into the household wall socket. If the voltage is not properly set or if you move to an area where the voltage requirements differ, adjust the selector switches as follows.

1. Use a medium-size screwdriver.
2. First, insert a screwdriver in the groove of the voltage selector at the right, and adjust so that the tip of the groove points to the voltage value of your area.
3. Next, insert a screwdriver in the groove of the voltage selector at the left and adjust until the voltage is the same as at the right.



‹Round 2-pin AC plug model› ‹Flat blade 2-pin AC plug model›

Information to User
Alteration or modifications carried out without appropriate authorization may invalidate the user's right to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

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The Art of Entertainment

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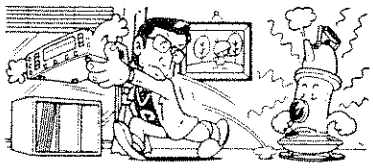
CAUTIONS REGARDING HANDLING

Location

Install the unit in a well-ventilated location where it will not be exposed to high temperature or humidity.

Do not install the unit in a location which is exposed to direct sunlight, or near hot appliances or radiators. Excessive heat can adversely affect the cabinet and internal components. Installation of the unit in a damp or dusty environment may result in malfunction or accident. (Also avoid installation near cookers etc., where the unit may be exposed to smoke from oil, steam or heat.)

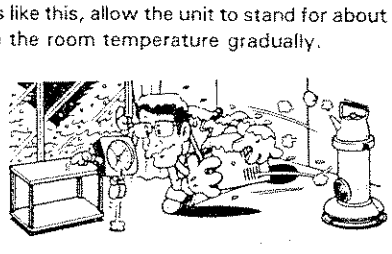


Precautions regarding installation

- Placing and using the unit for long periods on heat-generating sources such as amplifiers will affect performance. Avoid placing the unit on heat-generating sources.
- Install the unit as far as possible from TV sets. The unit installed in close proximity to such equipment may cause noise or degradation of the picture. Such noise may be particularly noticeable when an indoor antenna is used. If this occurs make use of an outdoor antenna, or turn off power to the unit.

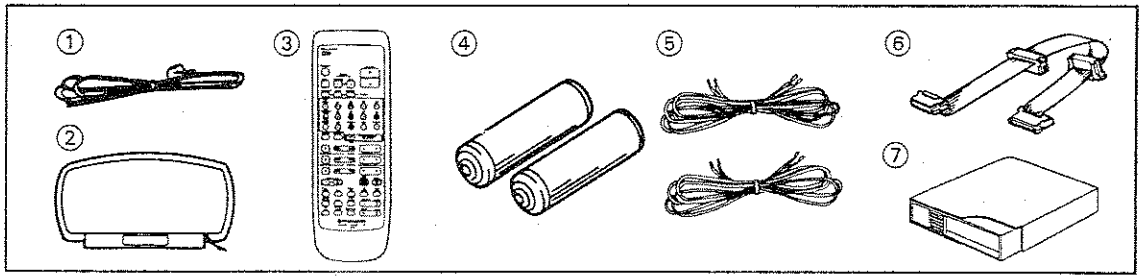
Condensation

When the unit is brought into a warm room from previously cold conditions or when the room temperature is suddenly increased, condensation may form inside and the unit may not be able to attain its full performance. In cases like this, allow the unit to stand for about an hour or raise the room temperature gradually.



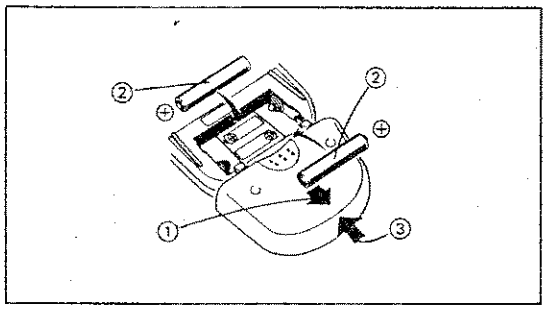
BEFORE OPERATING

CONFIRM SUPPLIED ACCESSORIES



① FM T-type antenna
② AM loop antenna
③ Remote control unit
④ Batteries × 2 (R03/UM-4 (size AAA))
⑤ Speaker cords × 2
⑥ System cable
⑦ Six-compact disc magazine

LOADING BATTERIES INTO REMOTE CONTROL UNIT

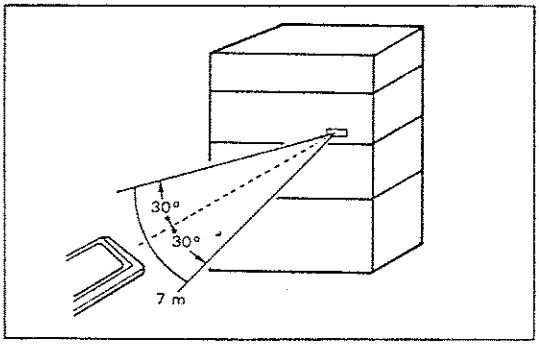


① Open the rear cover.
② Insert size AAA (IEC R03/UM-4) batteries with positive and negative polarities aligned correctly.
③ Close the cover.

Incorrect use of batteries may lead to leakage or rupture. Always be sure to follow these guidelines:

A: Always insert batteries into the battery compartment correctly matching the positive + and negative − polarities, as indicated inside the compartment.
B: Never mix new and used batteries.
C: Batteries of the same size may have different voltages, depending on their type. Do not mix different types of batteries.

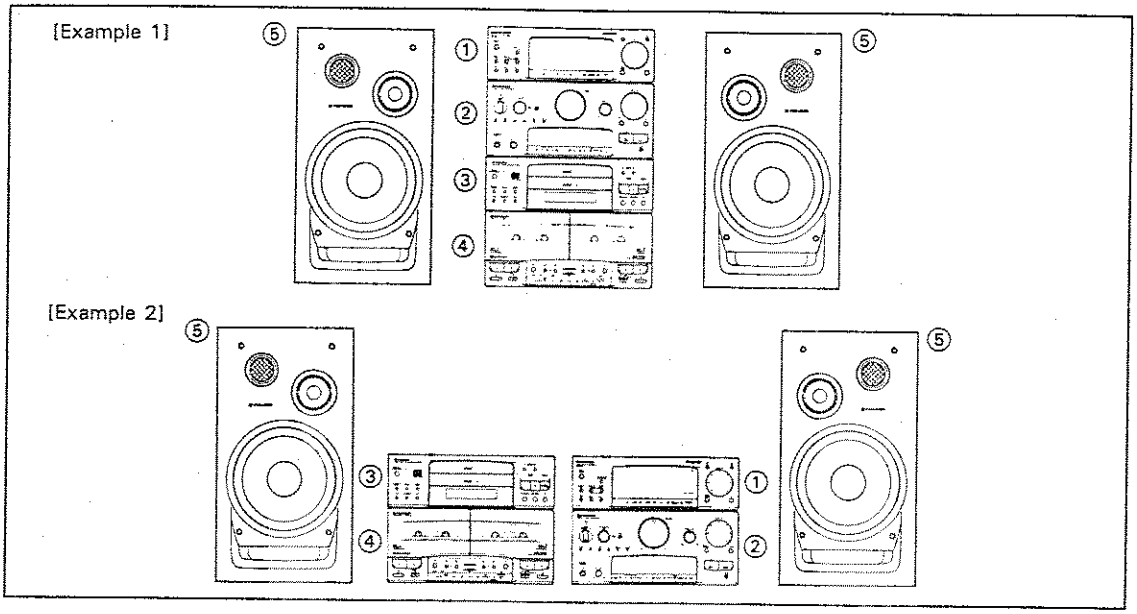
RANGE OF REMOTE CONTROL



NOTE:

- *This remote control unit may not function properly if an obstruction is located between it and the receiving unit, or if the remote control unit is held at an improper angle with respect to the receiving unit.*
- *The remote control unit may not operate properly if strong direct sunlight or fluorescent light is striking the signal receiver of the receiver. In such conditions, change the installation location or move the fluorescent lamp further away from the signal receiver.*
- *Malfunction or misoperation may result if the unit is used near other appliances emitting infrared radiation, or when another infrared remote control unit is used. Similarly, when this remote control unit is used near another component using an infrared remote control receiver, that component may malfunction.*
- *When you notice that the range in which the remote control unit can be used becomes notably shorter than normal, replace the batteries with new ones.*
- *When not using the remote control unit for extended periods (one month or more), remove the batteries to prevent any damage from leakage.*

SETTING UP THE SYSTEM



Install this system as shown in the accompanying illustration only.

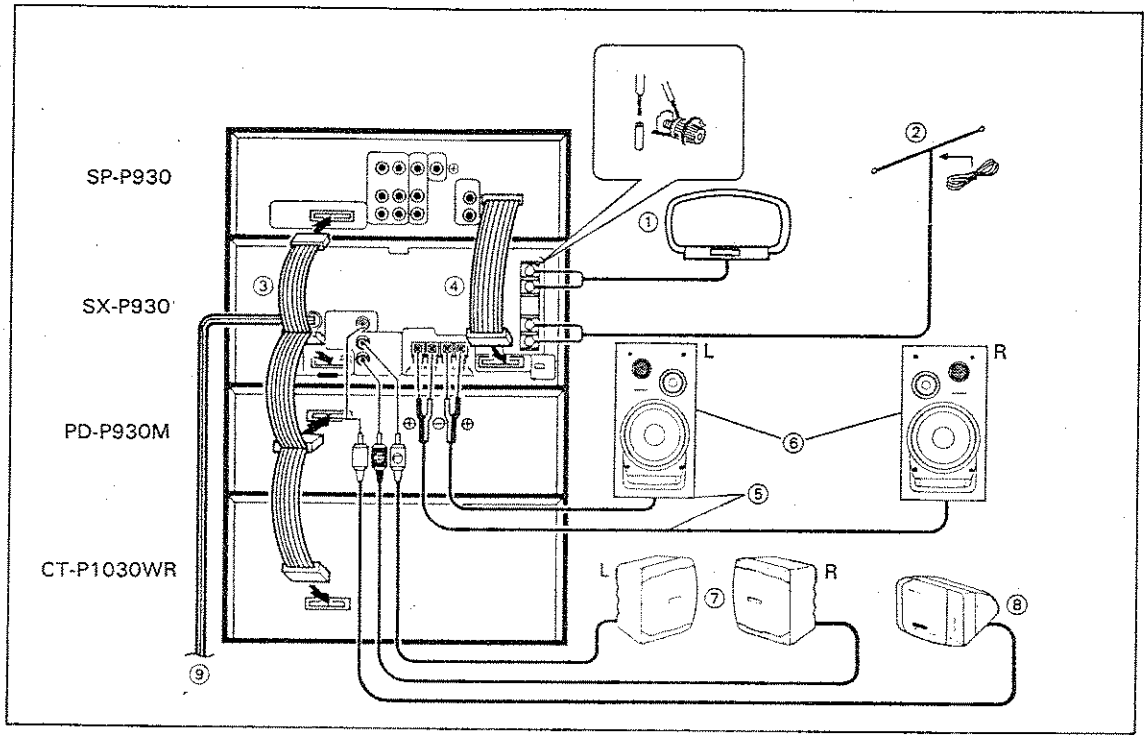
① Sound field processor (SP-P930)
② Receiver (SX-P930)
③ Compact disc player (PD-P930M)
④ Cassette deck (CT-P1030WR)
⑤ Speaker system (S-P930V)

- See page 7 for representative combinations of components.
- Make sure there is a minimum clearance of 1 cm between each of the components.

NOTE:

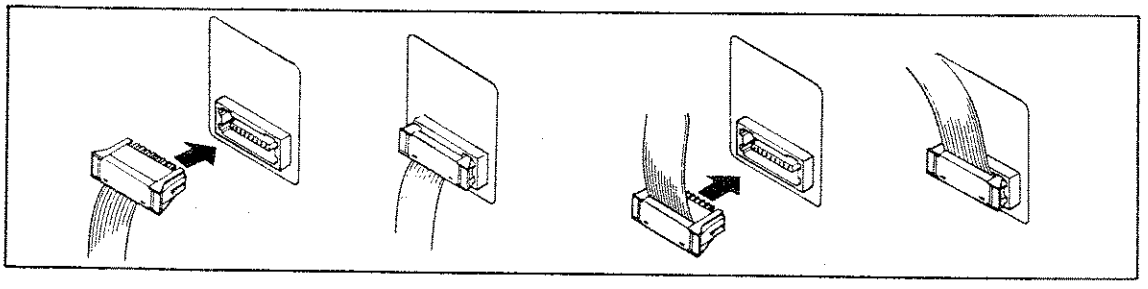
- *Place the speakers so that they are not touching any other components. If they are touching, vibrations transmitted from the speakers to other components may adversely affect sound quality. Preventing radiation of heat from the amplifier may also cause malfunctioning.*
- *If the turntable is mounted directly on or against a speaker, the vibration from the speaker will be transported to the tonearm's cartridge, thus causing feedback howling. Be sure that speakers are mounted sufficiently isolated from the turntable.*
- *This system is equipped with a safety circuit which may operate in event of abnormality to automatically cut off the power.*

BASIC CONNECTIONS



① Accessory AM loop antenna
② Accessory FM T-type antenna
③ Accessory system cable*
④ From Sound field processor SP-P930 to Stereo receiver SX-P930 (white).
⑤ Speaker cords
⑥ Speaker system
⑦ Surround speaker system S-P77 (sold separately)
If other speakers are connected, be sure to use those with impedance ratings of 16 Ω or more.
Only speakers cables with pin-jack connectors can be used.
⑧ Center speaker (S-P7C)
Other speakers (pin-jack connector type) can also be connected.
Always use speaker impedance between 8 and 16 Ω.
⑨ To AC wall socket
* Power cannot be supplied unless all four components are connected as shown.

Plug the power cord into the AC wall socket outlet only after all the connections have been completed.

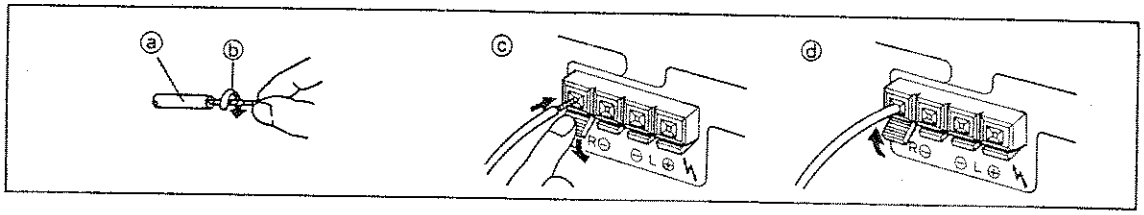


Proceed as follows with the set-up and connections.

1. **Place the units from top to bottom in the order SP-P930, SX-P930, PD-P930M and CT-P1030WR.**
2. **Connect the system cables as shown in the illustration.**

System cable connections:
Insert the connector until it locks, thus ensuring that it is connected. When disconnecting the connector, pull it in the opposite direction while pressing the left and right tabs.

3. Connect the FM T-type antenna ② and the AM loop antenna ① to the receiver's antenna terminals.
4. Connect the speaker cords ⑤ to the SPEAKERS terminals. Connect the "⊕" terminals on the receiver to the "⊕" terminals on the speakers, the "⊖" terminals on the receiver to the "⊖" terminals on the speakers.

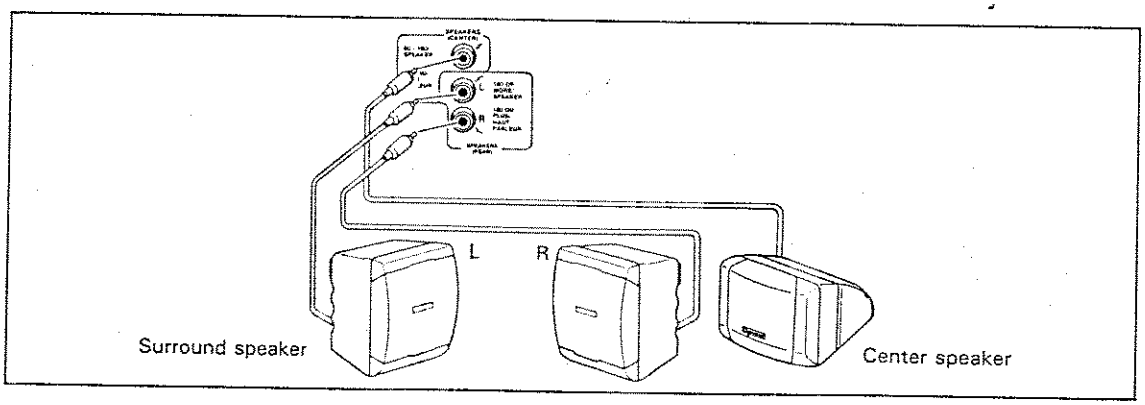


ⓐ Speaker cords
ⓑ Twist the strands.
ⓒ Push away.
ⓓ Pull back.

NOTE:
Do not allow the conductors of the cords to project out of the terminals or to come into contact with other conductors. A breakdown or failure may occur when conductors touch.

Precautions for the S-P930V:
- *Be careful not to block the lower port opening on the rear side of the speaker.*
- *The sponge located in the lower port opening on the front side of the speaker is damping material placed there in order to improve sound quality; do not touch or remove the sponge.*

Speaker impedance
Connect speaker systems with a nominal impedance ranging from 8 Ω to 16 Ω.



Surround speaker connection

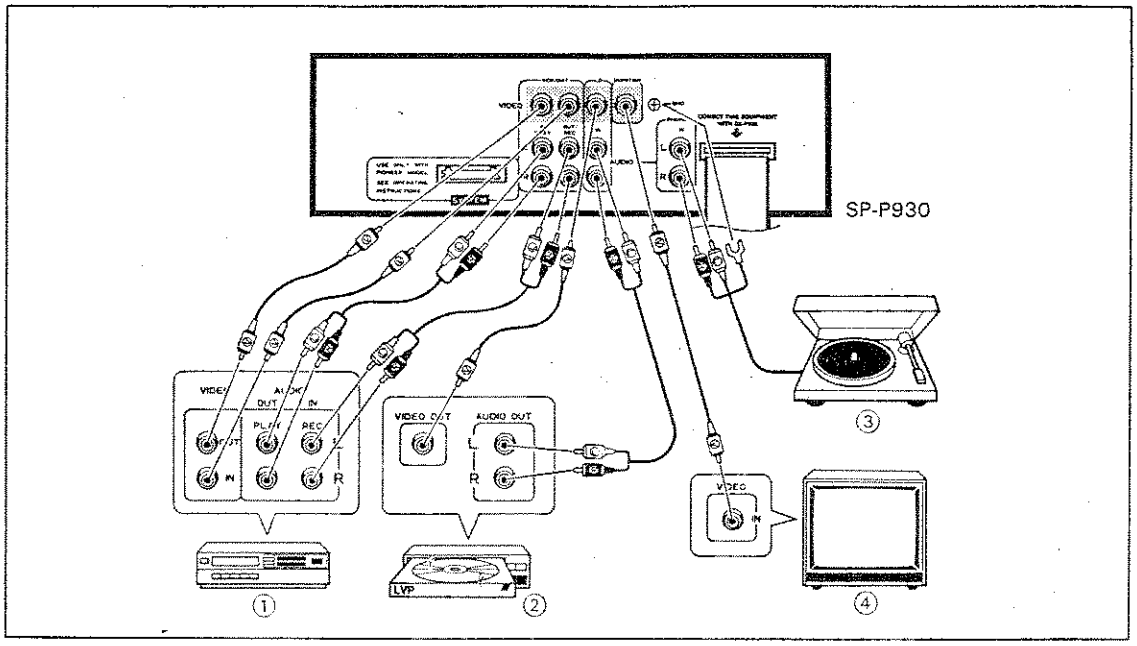
Connect the plugs properly.
Connect a speaker system with a nominal impedance of 16 Ω or more.

Center speaker connection

(Always use speaker impedance between 8 and 16 Ω for the center speaker.)

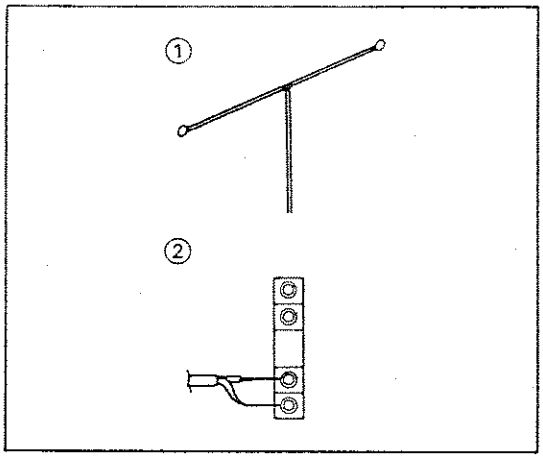
5. **Finally, connect the power cord to the AC wall socket ⑨.**
When connecting or disconnecting the system cable, do so only after disconnecting the power plug from the wall socket.

CONNECTING A STEREO TURNTABLE, LD PLAYER, VCR (DAT) AND TV



① VCR or DAT
② LD player
③ Stereo turntable
④ TV

ANTENNA CONNECTIONS



Radio reception is not possible unless the antenna is properly connected.

The strength of broadcast signals varies from one area to another. Signal propagation is especially poor in metropolitan areas, where there are many tall buildings, and in mountainous areas. Proper antenna installation is vital to good reception.

FM ANTENNA

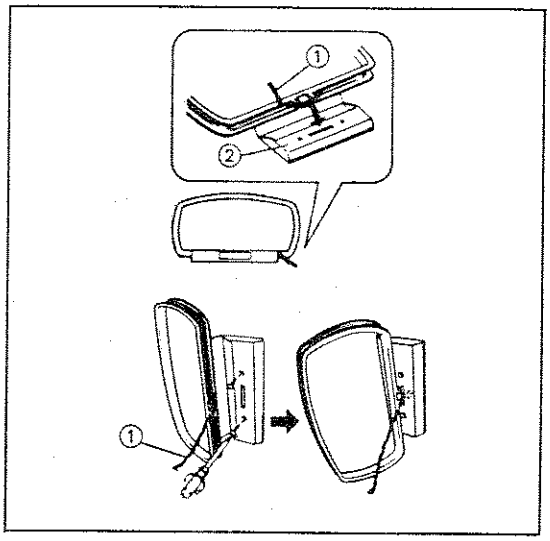
① FM Antenna Attachment

Connect the accessory FM antenna to the FM terminals. Stretch the antenna out to its full "T" shape, and affix it to a wall.

② External FM antenna installation

Use an external antenna when the signals from the station are weak and cannot be picked up by the accessory FM antenna, or when the sound heard is accompanied by large amounts of noise.

- Connect as in Figure ② if using a 75 Ω coaxial cable.



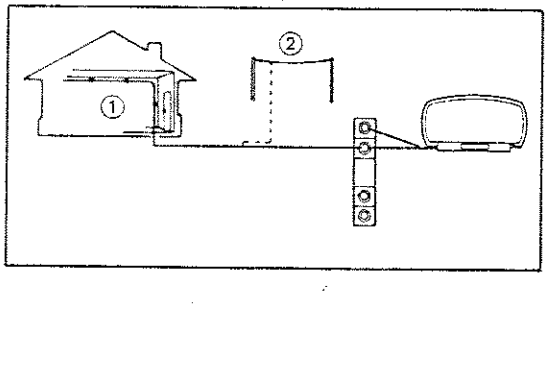
AM ANTENNA

The AM loop antenna supplied with the receiver should be connected to the AM antenna terminals. The antenna should be placed at a distance from the receiver, and should not be allowed to touch metallic objects. Avoid placing it near CD players, personal computers, television sets, and other devices generating radio frequencies.

Setting up the AM loop antenna

- Insert the claw on the bottom of the antenna into the groove on the leg.
- Place the antenna on a level surface and rotate it to locate the orientation that yields the best reception.
- Use the attachment hole in the leg to screw to a wall or other location, then insert the claw on the bottom of the antenna into the groove in the leg (fixing the antenna in the direction that gives best reception).

① Lead wire
② Leg



External AM antenna

① **Indoor AM antenna**
Provide a vinyl-coated wire (5 to 6 meters long). Secure one end to the AM terminal and the other end to a wall or other high location.

② **Outdoor AM antenna**
If reception is still poor even when a lead antenna has been stretched out indoors, stretch out a vinyl-coated wire and secure it outdoors.

NOTE:
Do not detach the AM loop antenna when using the external AM antenna.

FM/AM CHANNEL STEP SWITCH

Adjustment is only necessary when there is a CHANNEL STEP switch at the rear panel.
The CHANNEL STEP switch is located on the rear panel of the stereo receiver. Before the tuner leaves the factory, this switch is set to the channel step standard of the areas where the tuner is sold.
Depending on the position of this switch, each time TUNING switch is pressed, the frequency display changes by the following amount:

[100 kHz/10 kHz] position
For areas with channel step of 100 kHz for FM and 10 kHz for AM.

[50 kHz/9 kHz] position
For areas with channel step of 50 kHz for FM and 9 kHz for AM.

NOTE:

- *If the switch is set to the wrong position, correct turning may not be possible.*

Consult your dealer of you are not sure about the radio channel step standard in your area.

SURROUND EFFECT

This unit is equipped with DOLBY PRO LOGIC SURROUND. There's also a DSP (Digital Signal Processor), with a choice of six SFC (Sound Field Control) simulated surround settings.

• SURROUND

In addition to the front speakers, rear speakers (surround speakers) can also be installed. The sound output from the front and rear speakers adds an enhanced acoustic presence.

• DOLBY PRO LOGIC SURROUND

Choose this setting for movies and music (especially Video Discs and video tapes bearing the DOLBY SURROUND™ mark) playback.
DOLBY PRO LOGIC SURROUND continuously detects the size and direction of the dominant signal and cancels undesirable crosstalk, thereby providing signal emphasis. You can clearly perceive the directions and source of the music. Real flow of sound also can be re-created naturally using this feature.
You feel as if you are in an outstanding and expansive sound field.

You can choose from the following CENTER MODE settings:

When using a center speaker:

- **NORMAL**—Low range frequencies, which have little effect on directionality and positioning, are routed to the left and right front speakers. So you can use a relatively small size speaker as the center speaker.

When not using a center speaker:

- **PHANTOM**—The signal which would have been sent to the center speaker is divided equally between the left and right front speakers.

*

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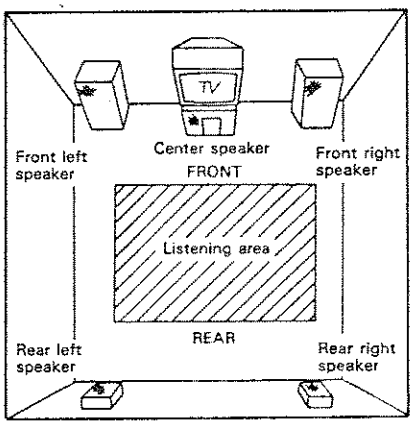
Speaker Installation Example for Surround

To get the most out of the surround system, place the speakers as shown below.

An example of speaker positioning



If the rear speakers are positioned at an extreme distance, the surround level is unable to adjust and the surround effect will not be fully achieved.

Install the stereo receiver in a proper place away from the TV.

NOTE:

- *To avoid interference with the picture on a nearby TV set, use magnetically shielded speaker systems. This is particularly important for the center speaker since it is usually located closest to the TV.*
- *Position the left and right channel speakers at equal distances from the TV set and approximately 1.5 m from each other.*
- *Position the center speaker above, below, or behind the TV set. Sound may not appear to coincide with the picture if you position it next to the TV set.*
- *Rear speakers are best positioned slightly above ear level.*

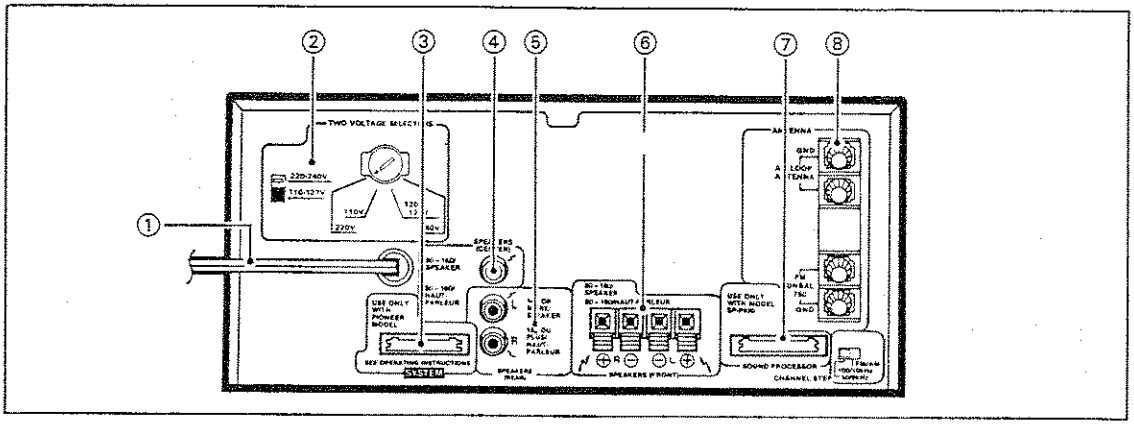
DOLBY 3CH LOGIC

Combining the rear speaker signal with that of the front speakers results in your being able to enjoy a regenerated sound field which has comparatively more presence and a more expansive feeling from the front 3 channels (front L, front R, and center speakers) than that of ordinary stereo regeneration.

DOLBY 3CH LOGIC can be used with stereo sources not encoded with DOLBY SURROUND.

REAR PANEL FACILITIES

STEREO RECEIVER: SX-P930



① **Power cord**
Connect this to the AC wall socket.

② **VOLTAGE SELECTORS (See page 1.)**

③ **SYSTEM jack**
Connect the system cable here.

④ **SPEAKER (CENTER) jack**
Connect the center speaker to this jack

NOTE:
Connect a speaker system with a nominal impedance ranging from 8 Ω to 16 Ω.

⑤ **SPEAKERS (REAR) jack**
Connect the surround speaker systems.

NOTE:
Connect a speaker system with a nominal impedance of 16 Ω or more.

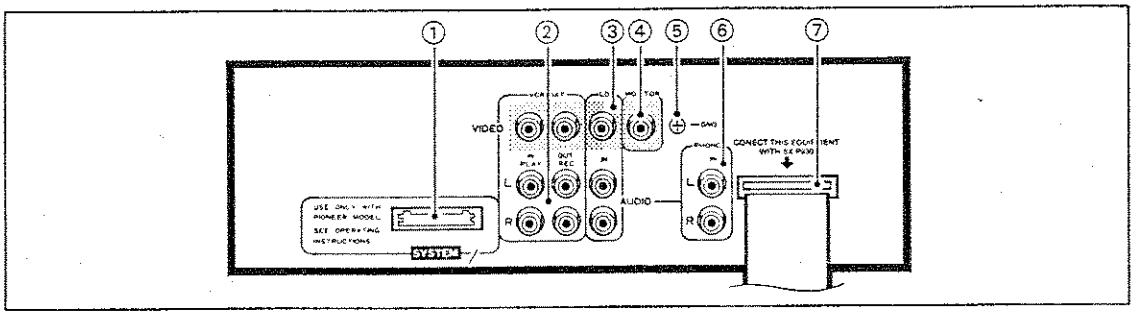
⑥ **SPEAKERS (FRONT) terminals**
L: Connect the left speaker system as seen from the listening position.
R: Connect the right speaker system as seen from the listening position.

NOTE:
Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
Use a center speaker of impedance 8 Ω — 16 Ω.

⑦ **SOUND PROCESSOR jack**
Connect the SOUND FIELD PROCESSOR system cable here.

⑧ **FM/AM ANTENNA terminals**
Antennas must be connected to these terminals; otherwise station reception is not possible. See page 7 for details on ANTENNA CONNECTIONS.

SOUND FIELD PROCESSOR: SP-P930



① SYSTEM jack
Connect the system cable here.

② VCR/DAT jacks
IN/PLAY:
Connect to the audio and video output jacks of VCR (DAT).
OUT/REC:
Connect to the audio and video input jacks of VCR (DAT).

③ LD input jacks
Connect to the audio and video output jacks of LD player.

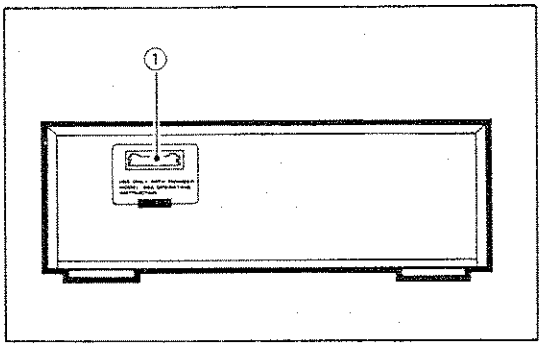
④ MONITOR jack
Connect to the television's monitor input jack.

⑤ Ground terminal (GND)
Use a screwdriver to connect your turntable's ground wire to this ground terminal.

⑥ PHONO input jacks
Connect the output cable of the turntable to these jacks.

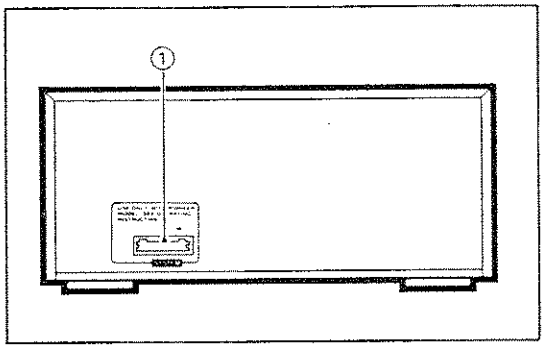
⑦ SOUND FIELD PROCESSOR system cable
Connect to the SOUND PROCESSOR jack of the receiver.

MULTI-PLAY COMPACT DISC PLAYER: PD-P930M



① SYSTEM jack
Connect the system cable here.

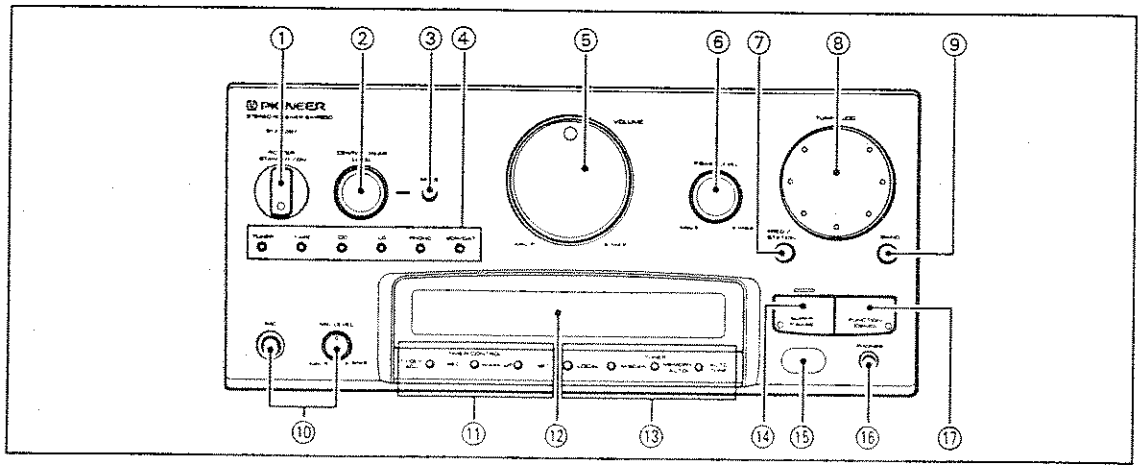
STEREO DOUBLE CASSETTE DECK: CT-P1030WR



① SYSTEM jack
Connect the system cable here.

FRONT PANEL FACILITIES

STEREO RECEIVER: SX-P930



① POWER STANDBY/ON switch

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

The receiver section display indicates only the time.

② Center/rear level adjustment knob (CENTER/REAR LEVEL) (p. 43)

The sound level of the center and surround speakers can be adjusted with this knob.

The rear or center level can be adjusted by the mode selector button ③.

③ Mode selector button (MODE) (p. 43)

Use to adjust the center and rear level.

Each time this button is pressed, one of the settings will be selected in the following order.

Center level (CENTER) → Rear level (REAR) →

④ Function indicators (TUNER, TAPE, CD , LD, PHONO, VCR/DAT)

⑤ VOLUME control

⑥ P.BASS LEVEL control

P.BASS stands for Proper Bass Active Supply System, and refers to the built-in system for emphasizing low sound ranges.

This unit is equipped with the Super P.BASS to allow you to select two kinds of bass reproduction, depending on the kind of music source and your own preference. This knob can be used to adjust the super P.BASS level when the SUPER P.BASS button is set to ON.

⑦ FREQ/STATION button

Use to select the display mode (frequency mode or station mode).

- **Frequency mode:** Display indicates the frequency of the tuned station, and the current time.
- **Station mode:** Display indicates the frequency of the tuned station together with the recorded station number assigned to that station.

⑧ TUNING JOG control

Use to set the time and tune the receiver's reception frequency.

⑨ BAND button

Use to select FM or AM bands.

⑩ MIC (microphone) jack and MIC LEVEL (microphone level) control

⑪ TIMER CONTROL buttons (CLOCK ADJ, REC, WAKE-UP, SET)

Use these buttons to set the current clock time and the timer for timed recording and playback.

⑫ Display

⑬ TUNER buttons

- **LOCAL button:** Set to on when nearby FM broadcast signals are too strong, resulting in distortion.
- **M.SCAN (memory scan) button:** Automatically scans (for about five seconds each) each of the stations stored in the station memory.
- **MEMORY (AUTO) button:** Use to save broadcasting stations in the station memory.
- **AUTO-TUNE button:** If this button is set ON, the frequency changes automatically and the tuning stops at the first station that is received.

⑭ SUPER P.BASS button

Use this button to select from among the two types of super P.BASS effect desired, then use the P.BASS level control to adjust the level as desired.

⑮ **Remote sensor window**

⑯ **Headphone jack (PHONES)**

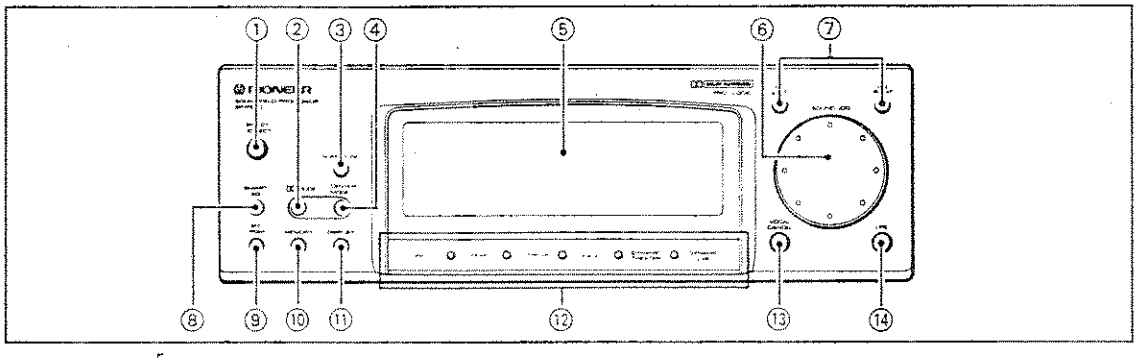
⑰ **FUNCTION (DEMO) button**

Use this button to select the desired source.
The settings change as follows each time this button is pressed.

┌→ TUNER → TAPE → CD → LD ┐
└ VCR/DAT ← PHONO ←┘

If this button is pressed when the power is off, the DEMO (demonstration) mode is set and the power goes ON.
In the DEMO mode, the functions included in the variety setting of this system are displayed on the panel.

SOUND FIELD PROCESSOR: SP-P930



① **Effect/direct button (EFFECT/DIRECT) (p. 42 ~)**

If this effect is ON, the effects that select the location can be adjusted. If it is OFF, the source sound is reproduced without modification. If DIRECT is set, the signal passes in the shortest path and is reproduced in the most natural manner.
Each time this button is pressed, one of the settings will be selected in the following order.

┌→ EFFECT/ON (►EFFECT◄) ┐
└ EFFECT/OFF (EFFECT) ← DIRECT (no display) ←┘

② **Dolby pro logic mode button (□□ MODE) (p. 44)**

This button is used to switch between DOLBY PRO LOGIC, 3-ch LOGIC and OFF (SFC mode still ON).
Each time this button is pressed, one of the settings will be selected in the following order.

┌→ Pro Logic (PRO LOGIC) ┐
└ OFF ← 3ch Logic ←┘
(SFC mode still ON) (3ch LOGIC)

③ **Surround button (SURROUND) (p. 43)**

This button operates when the surround speakers are connected.
If the surround is ON, the acoustic presence and wide sensation can be heard.
Each time this button is pressed, one of the settings will be selected in the following order.

┌→ Surround ON → Surround OFF ┐

④ **Center mode button (CENTER MODE) (p. 44)**

This button is used when DOLBY PRO LOGIC is set ON to switch between NORMAL and PHANTOM settings.

┌→ Normal (NORMAL) → Phantom (PHANTOM) ┐

⑤ **Display**

⑥ **SOUND JOG dial**

Use to adjust the strength of sound-field effects, and to change the listening point selector position.

⑦ **Equalizer left, equalizer right buttons (EQ LEFT, EQ RIGHT) (p. 46)**

Use these buttons to adjust the sound. Move the cursor (flashing light) to the position to be adjusted.

⑧ **SMART equalizer button (SMART EQ) (p. 51)**

When this button is set to ON, the sound will be automatically augmented in accordance with the source, in order to allow the modified sound field effects to be reproduced with optimum results.

⑨ **SFC MODE/PROGRAM button (SFC/PGM) (p. 47)**

Use this button to select a memory position that you have created or other desired position. The SFC is the sound field control.

⑩ **MEMORY button (p. 47)**

Press to save a personally created sound field.

⑪ **DISPLAY button**

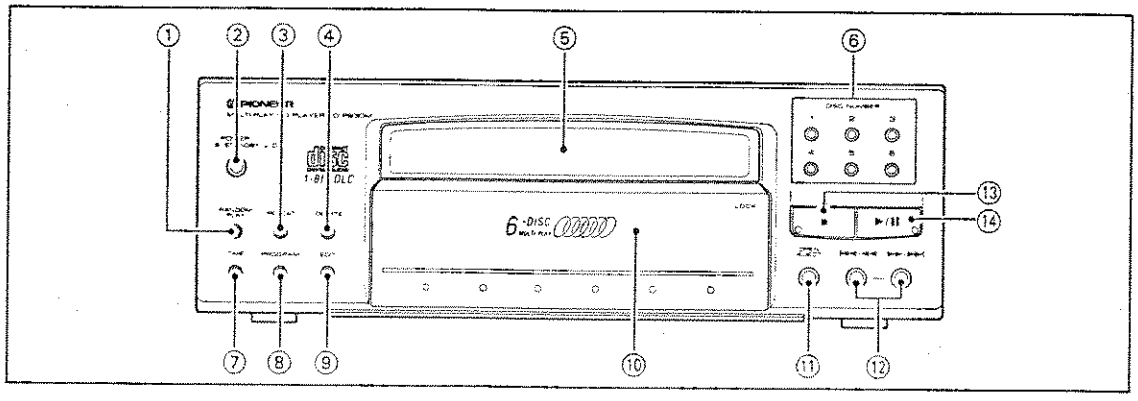
Each time this button is pressed, the items shown on the display change.

⑫ **Sound field buttons (DISCO, CHURCH, ARENA, HALL, DYNAMIC THEATER, DYNAMIC LIVE)**
Use these buttons to select the desired sound field.

⑬ **VOCAL CANCEL button (p. 52)**
Set to ON to use the vocal cancel function.

⑭ **Listening point selector button (LPS) (p. 48)**
Even when listening in a room that lacks an optimum listening position, you can use this function to produce the best possible sound field for the listening position actually used.

MULTI-PLAY COMPACT DISC PLAYER: PD-P930M



① **RANDOM PLAY button**
Press to begin random playback.

② **POWER switch (■ STANDBY/ ▬ ON)**
Press to turn power to the unit ON and STANDBY. This power switch is only secondarily connected; even when it is set to the STANDBY position, it does not disconnect the unit from the power supply.

③ **REPEAT button**
Press this button for repeat playback. Pressing the button once, twice or three times will change the repeat mode from single track repeat, to all tracks repeat, and repeat playback cancellation respectively.

④ **DELETE button**
Pressing this button and then selecting the discs with DISC NUMBER buttons (1 through 6) or selecting the tracks with Manual/Track search buttons will result in the selected discs and tracks not being played even when Play/Pause button is pressed.

⑤ **Display**

⑥ **DISC NUMBER buttons (1 – 6)**
Use to select disc numbers for playback or programming.

⑦ **TIME button**
This button selects the display mode of the display section.
When the button is pressed during CD playback, the indication changes from TIME, REMAIN, to TOTAL in that order. (For details concerning the display contents, refer to the explanation about the "DISPLAY SECTION")

⑧ **PROGRAM button**
Use to program a sequence of tracks
- Press this button after selecting a desired disc and track with DISC NUMBER and Track search buttons. Tracks will be added in the order in which they are specified.
- If only a DISC NUMBER button is pressed, all tracks on the specified disc will be added to the program. The letters [AL] will be appear on the indicator.

⑨ **EDIT button**
If this button is pressed for A.S.E.S. recording and Manual/Track search buttons are used to designate the length (in minutes) of the recording tape, the CD player will automatically select and program the CD tracks to be recorded. The tracks will be selected for recording so that the empty portion remaining at the end of the tape will be as short as possible. For details regarding this function, consult the operating instructions for the receiver used.

⑩ **Door**
The magazine insertion slot is inside this door.

⑪ **OPEN/EJECT button**
Press OPEN/EJECT button to open the door. When the button is pressed even further, the magazine is ejected forward.
During use of the A.S.E.S. function, pressing OPEN/EJECT button will open the door, but will not eject the magazine.

⑫ **Manual/Track search buttons (⏮ • ◀◀, ▶▶ • ⏭)**

To perform track search in normal playback, programmed playback or PAUSE mode.
You can advance to the next track or go back to the previous one by using Manual/Track search buttons. The fast forward or fast reverse function will be activated by holding down these buttons.

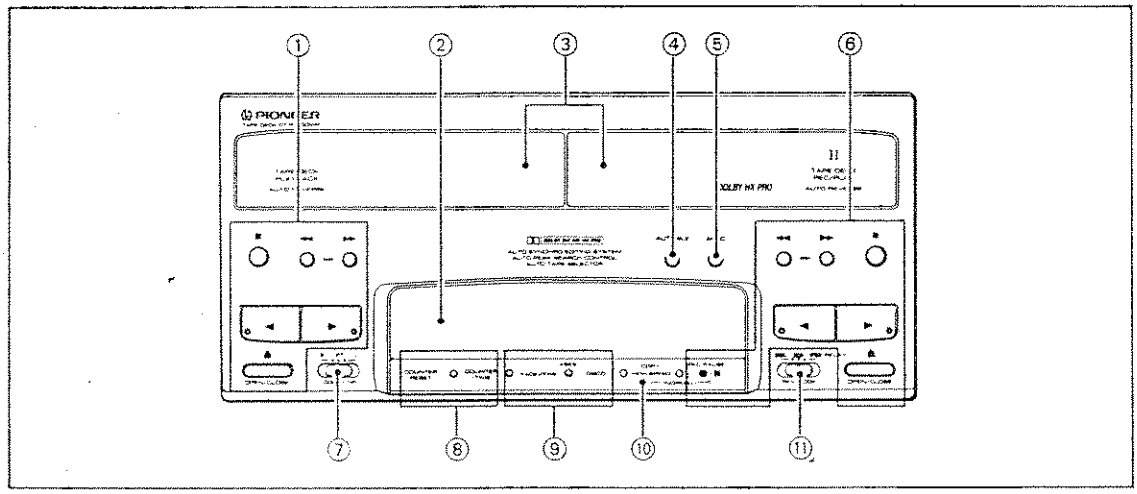
⑬ **Stop button (■)**

Press to stop playback. When pressed, the player goes into stop mode and all operations stop.
When pressed during stop mode, the program stored in memory is cleared.

⑭ **Play/Pause button (▶/❚❚)**

Playback will begin if this button is pressed when the CD player is stopped or paused. Pressing the button during playback will cause the player to temporarily pause.

STEREO DOUBLE CASSETTE DECK: CT-P1030WR



① **Deck I operating buttons**

■ : Stop
◀◀, ▶▶ : Rewind, fast forward
◀, ▶ : Play
⏏ : OPEN/CLOSE cassette (cassette door opens/closes)

② **Display section**

③ **Cassette trays for DECK I and DECK II.**

④ **AUTO BLE button**

When this button is pressed, recording bias, level and equalization characteristics can be automatically set to optimum conditions for each tape used.

⑤ **Auto Peak Search Control button (APSC)**

When recording is performed with this button in the ON position, the recording level will be set automatically to produce the optimum dynamic range for the tape.
This button does not function during use of the tape copy function.

⑥ **Deck II operating buttons**

■ : Stop
◀◀, ▶▶ : Rewind, fast forward
◀, ▶ : Play
⏏ : OPEN/CLOSE cassette (cassette door opens/closes)
● ❚❚ REC PAUSE
: Temporarily pause recording.

⑦ **DOLBY* NR selector switch (DOLBY NR B/OFF/C)**

Use to select Dolby noise reduction.

*
- *Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.*
- *"DOLBY", the double-D symbol ⧈ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.*

⑧ **Counter select buttons (COUNTER RESET, COUNTER/TIME)**

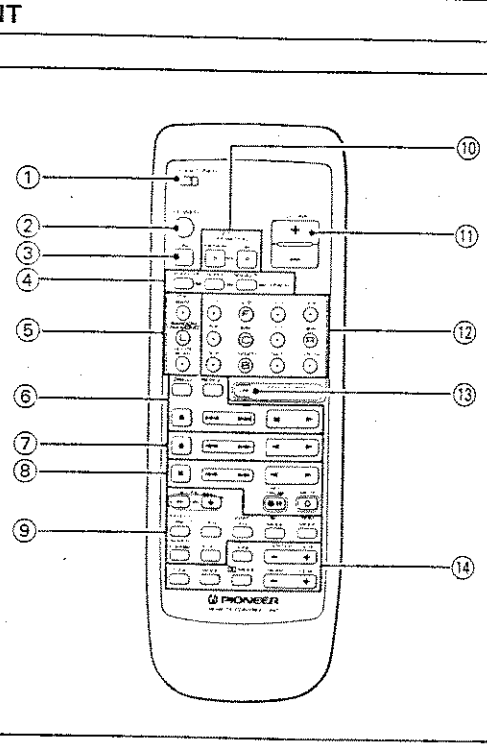
These buttons are used when setting display options including time counter and tape counter.

⑨ **ASES button (ASES FADE/FINE, DISCO) (p. 39 –)**
Use these buttons for automatic editing of CD tracks when recording on cassette tapes.

⑩ **COPY button (p. 34)**
Use to perform copying of one cassette tape to another. Two speeds are available, NORMAL and HIGH-SPEED (twice normal speed).

⑪ **Reverse mode switch (REV MODE ⇄ / ⇉ / RELAY)**
Use to select the tape-travel mode
⇄ : Play back one side only.
⇉ : One full play (forward and reverse sides) of the cassette tape in either deck I or deck II.
RELAY : Continuous auto-reverse play of the tapes in decks I and II, beginning from the forward (▶) direction.

REMOTE CONTROL UNIT



① **CD/TUNER select switch**
Set this switch to the CD side when using the CD player, and to the TUNER side when using the receiver to listen to radio broadcasts.

② **POWER button**

③ **Function button (FUNC)**
Use this button to select the music source desired. Each time the button is pressed, the mode changes as follows:
TUNER → TAPE → CD → LD → VCR/DAT ← PHONO ←

④ **TIMER operation buttons**
- **WAKE-UP**: Use to set the timer playback function on and off. (The function will not turn on when no time has been set.)

Each time the button is pressed, the mode changes as follows:
WAKE-UP 1 → WAKE-UP 2 → off

- **SLEEP**: Use to set the sleep timer. Each time the button is pressed, the mode changes as follows, and is displayed in the receiver's display:

AUTO
(auto-sleep: only during operation of CD or tape)
↓
90 (about 90 minutes)
↓
60 (about 60 minutes)
↓
30 (about 30 minutes)
↓
0 (off)

- **SNOOZE:** When this button is pressed during timer playback, the playback stops, but recommences about five minutes later. This button does not function if pressed during normal playback.

⑤ CD/TUNER operation buttons

[When the CD/TUNER select switch is set to the TUNER side]

- **BAND:** Use to select the reception band (FM, AM).
- **FM MONO:** During reception of stereo broadcasts, use to switch between stereo and monaural reception.
- **SCAN:** Press to scan the stations stored in the station memory for about five seconds each.

[When the CD/TUNER select switch is set to the CD side]

- **PGM:** Press to select programmed CD playback.
- **RANDOM:** Press to select random playback of the tracks on a CD.
- **HI-LITE (Hi-lite scan):** Press when you wish to search for a certain track on a CD.

⑥ CD operation buttons

DISC : DISC selection
REPEAT : This button is used to repeat a performance.
■ : Stop
⏮, ⏭ : Perform track search.
❚❚ : Pause
▶ : Play

⑦ DECK I operation buttons

■ : Stop
◀◀, ▶▶ : Rewind, fast forward
◀, ▶ : Play

⑧ DECK II operation buttons

■ : Stop
◀◀, ▶▶ : Rewind, fast forward
◀, ▶ : Play
● ❚❚ **REC PAUSE** : When pressed once, the unit is set to the recording standby mode; recording begins when the play button (◀ or ▶) is pressed next. When pressed during recording, recording is temporarily paused.
O MUTE : When pressed once during recording, a silent interval of approx. 4 seconds duration is recorded, after which the deck is set automatically to the recording standby mode. When held depressed continuously, a silent interval is recorded for as long as the button is held depressed. The unit will then enter the recording stand-by mode when the button is released.

⑨ Tone control buttons

- **SOUND JOG −/+:** Pressing this button produces the same effect as rotating the SOUND JOG dial.
  \+ ..... Stronger effect
  − ..... Weaker effect
- **EFFECT/DIRECT button (p. 42−):** Set the effect to ON to select the sound field produced by the sound field processor and to adjust the sound quality.
  A more natural sound is produced when DIRECT is set.
- **GEQ (Graphic Equalizer):** Use to set the sound field processor's graphic equalizer on and off. When set to ON, the display's GEQ indicator lights; the indicator turns off when the button is set to OFF.
- **SMART EQ (SMART equalizer) (p. 51):** When this button is set to ON, the sound will be automatically augmented in accordance with the source, in order to allow the adjusted sound field effects to be reproduced with optimum results.
- **SFC MODE:** Use to select one of the preset sound fields. Each time the button is pressed, one of the preset sound fields will be selected, in the following order:
  ┌→ DISCO → CHURCH → ARENA ┐
  │ DYNAMIC DYNAMIC │
  └ LIVE ← THEATER ← HALL ←┘
- **PGM MODE (Program mode) (p. 47):** This button is used when selecting one of your own personally created sound fields. Each time the button is pressed, one of the sound fields will be selected, in the following order:
  ┌→ A → B → C → D → E → F ┐
- **SUPER P.BASS:** Set this button to ON to add emphasis to low-frequency sounds. Two types of super P.BASS effect are provided; each time this remote control unit button is pressed, the color of the SUPER P.BASS button indicator on the receiver changes as follows:
  ┌→ orange → red → off ┐
- **FLAT:** When set to ON, tonal characteristics are set for flat response (no additional tonal coloring is added to the source). This setting is equivalent to making no adjustments to the tone.

⑩ SMART operation button (SMART OPERATION/MEMORY, CALL) (p. 49)

Use this button to call the SMART operation memory.

⑪ VOLUME +/− buttons

When pressed, the VOLUME control on the receiver is actually moved by a motor.

⑫ **Number buttons**

[When the CD/TUNER select switch is set to the TUNER side]

Use to call up stations stored in the station memory (1—12).

Press a number button once for Mode 1 (1—12), twice for Mode 2 (13—24) and three times for Mode 3 (25—36).

⑬ **Listening point selector button (LPS) (p. 48)**

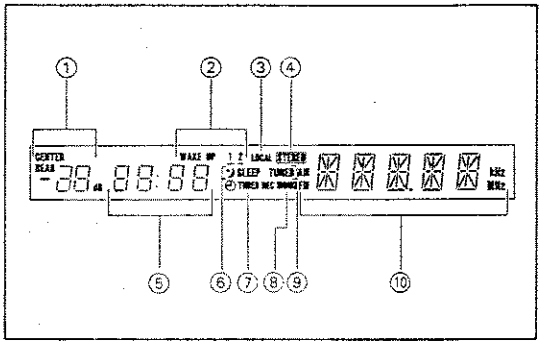
While holding this button depressed, press the CD/TUNER operating buttons and the number buttons to select your chosen LPS position.

⑭ **Surround adjustment button**

- **SURROUND (p. 43)**
  If this button is set ON, the acoustic presence and wide sensation can be enhanced.
  When surround speakers are connected, sound is output from these speakers.
  Each time this button is pressed, one of the settings will be selected in the following order.
  ↱ Surround ON → Surround OFF ↴
- **CENTER LEVEL −/+ button (p. 43)**
  Use this button to adjust the center speaker volume.
- **TEST TONE button (p. 43)**
  Use this button to adjust each speaker level when DOLBY PRO LOGIC or DOLBY 3CH LOGIC is set ON.
- **CENTER MODE button (p. 44)**
  Use this button to switch the center mode when DOLBY PRO LOGIC is set ON.
  Each time this button is pressed, one of the settings will be selected in the following order.
  ↱ Normal (NORMAL) → Phantom (PHANTOM) ↴
- **Dolby pro logic mode button (DD MODE) (p. 44)**
  Use this button to switch between DOLBY PRO-LOGIC, 3-ch LOGIC and the OFF (SFC mode still ON).
  ↱ Pro Logic (PRO LOGIC) ↴
  ↳ OFF (SFC mode still ON) ← 3ch Logic (3ch LOGIC) ↵
- **REAR LEVEL −/+ button**
  Use this button to adjust the surround speaker volume.

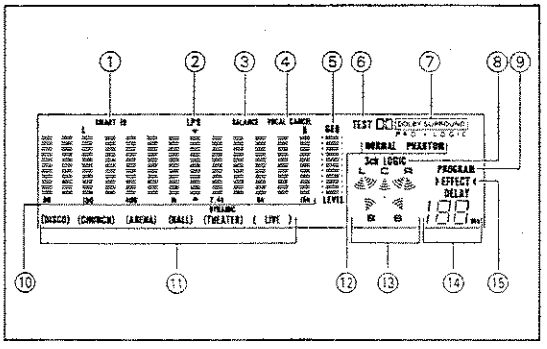
DISPLAY SECTION

STEREO RECEIVER: SX-P930



① The rear and center levels are displayed.
② Indicates setting of wake-up timer.
③ Indicates LOCAL button is in ON position.
④ Lights during reception of stereo broadcasts.
⑤ Normally indicates the current time;
The current time is shown when the display is in the frequency mode; the channel number is shown when the display is in the station mode.
⑥ Indicates SLEEP timer is ON.
⑦ Indicates setting for timer recording.
⑧ Indicates FM MONO button is in ON position.
⑨ Lights during broadcast reception.
⑩ Displays station broadcast frequency and main operating conditions.

SOUND FIELD PROCESSOR: SP-P930



① This indicator lights when the smart equalizer is set to ON.
② When this indicator is flashing, the Listening Point Selector can be used to set your listening position. When the indicator is lighted steadily, the Listening Point Selector has been set to ON.
③ This indicator lights when the front balance is set ON (during TEST TONE operation).
④ This indicator lights when the vocal cancel function is set ON.
⑤ When lighted, indicates the graphic equalizer is ON.
⑥ Lights when the TEST TONE function is set ON.
⑦ Lights when the DOLBY PRO LOGIC surround is set ON.
⑧ Lights when the DOLBY 3ch-Logic is set ON.
⑨ Lights when storing or calling up a personally created sound field.
⑩ Visually displays the positions of the spectrum analyzer, graphics equalizer and listening point selector.
⑪ When a function enclosed in brackets [ ] lights, this indicates that the function is set.
⑫ Indicates the type of DOLBY PRO LOGIC SURROUND center mode.
⑬ Indicates the speaker operation condition.
L.R. ..... Left and right speakers
C ..... Center speaker
S ..... Surround speaker
⑭ Indicates SFC level or delay time.
⑮ When "EFFECT" is lighted steadily;
if ▶ and ◀ are also lighted, indicates effects are ON;
if ▶ and ◀ are not lighted, indicates effects are OFF.

MULTI-PLAY COMPACT DISC PLAYER: PD-P930M

① Lights when playing a CD.
② Displays the disc and track number.
③ Lights during random playback.
④ Lights during repeat playback.
⑤ Lights during delete mode.
⑥ Lights when using disc scan.
⑦ Lights when using computer programed playback.
⑧ Lights during program mode.
⑨ Lights during pause mode.
⑩ Displays playback time, etc.
⑪ When an attempt is made to search for a disc not actually present in the magazine, the disc's number mark goes out.

STEREO DOUBLE CASSETTE DECK: CT-P1030WR

① The display section will show DECK I or DECK II, depending on which deck's counter is currently displayed.
② Lights during tape copy operation.
③ These numbers change with the tape travel, thus giving an indication of how much tape has been played. When using the music search function, the numbers will change to show the number of the tracks being skipped. When the display is switched to the time counter, playback and recording times are displayed here.
④ During recording and playback, these lights indicate the recording/playback level of the tape.
⑤ Lights when using the auto peak search control.
⑥ Lights when recording on deck II, or when displaying the recording time.

HOW TO HANDLE CASSETTE TAPES

Bear in mind the following points before loading cassette tapes.

Is the tape loose, or is some of the tape outside the cassette?

If some of the tape is projecting outside the cassette shell or if it is loose, it may not feed between the capstan and pinch roller.

This will prevent the tape from being transported or damage the tape itself. In cases like these, insert a pencil into the reel hole and take up the slack (Fig. ①). Some cassette tapes come with a plastic or thick paper stopper which prevents tape slack. Remove this stopper when loading the tape and replace it after having used the cassette.

How can you prevent accidental erasure?

A cassette is provided with accidental erasure prevention tabs so that important recordings will not be erased accidentally. When the tab (Fig. ②) on the cassette shell is broken out with the tip of a screwdriver, it will not be possible to activate the recording function even by pressing the recording button, so valuable recordings will not be erased in error.

To re-record on a cassette whose tabs have been broken out, simply stick a piece of doubled adhesive tape over the tab areas, as shown in Fig. ③.

NOTE:

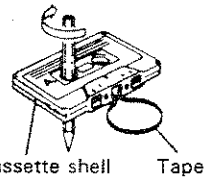
The accidental erasure prevention tabs are located at the top left on both sides A and B (1 and 2), so that material on each side can be prevented from being erased in error.

Tips on using cassette tapes

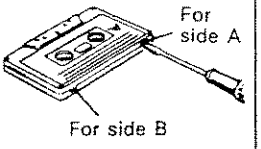
- Leader tape (which does not allow sound to be recorded over it) is provided at the beginning of a cassette tape. Start recording after allowing the tape to run for approx. 5 seconds so that the leader tape clears the recording head.
- Do not leave a cassette tape exposed to the environment. Store the cassette in its case so that dust and dirt do not adhere to the tape after use, and so that the tape is prevented from becoming slack.
  Choose a location which is not exposed to the effects of magnetism, dust, dirt and oil for storing the tapes.

- Do not use cassette tapes longer than C-90. Tapes longer than C-90 are quite thin and easily jam in the pinch roller and capstan and may also cause irregular winding. Do not use them in this unit. Use tapes of 90 minutes or less.

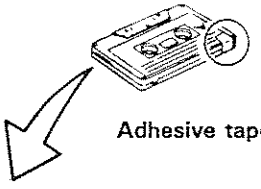
① How to take up tape slack.



② How to prevent already recorded tapes from being erased



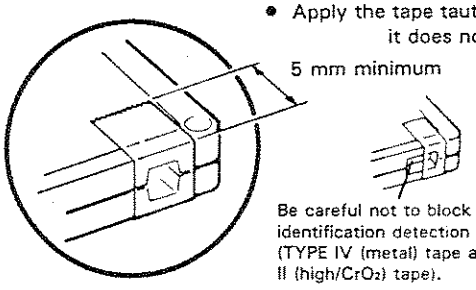
③ NOTE FOR RERECORDING ON A CASSETTE TAPE WHICH HAS A BROKEN TAB



Adhesive tape for rerecording

CORRECT METHOD OF APPLYING TAPE

- Apply two layers of adhesive tape.
- Apply the tape tautly so that it does not rise up.



Be careful not to block the tape identification detection hole (TYPE IV (metal) tape and TYPE II (high/CrO_2) tape).

BEFORE OPERATING PLAYER

CAUTIONS REGARDING HANDLING

Cleaning discs

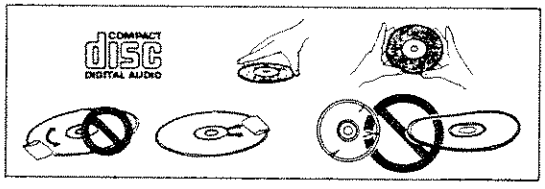
- The presence of fingerprints or smudges on the surface of the disc will not directly affect the recorded signals; but depending on the degree of contamination, the brightness of the light reflected from the signal surfaces may be reduced, causing degradation of sound quality.
  Always keep your discs clean by wiping them gently with a soft cloth from the inner edge toward the outer perimeter.
- If a disc becomes very dirty, wet a soft cloth in water. After wringing it out well, wipe the dirt away gently, and then remove any water drops with another soft dry cloth.
- Do not use record cleaning sprays or anti-static agents on discs. Also, never clean discs with benzene, thinner, or other volatile solvents which may cause damage to the disc surface.

Storing discs

- Discs are made of the same kind of plastic used for conventional analog audio records. Be careful not to allow discs to warp; always store discs in their cases vertically, avoiding locations with high heat or humidity, or extremely low temperatures. Avoid leaving discs in cars; car seats can become extremely hot when exposed to direct sunlight.
- Always read and abide by the precautionary notes listed on the disc labels.

Care of discs

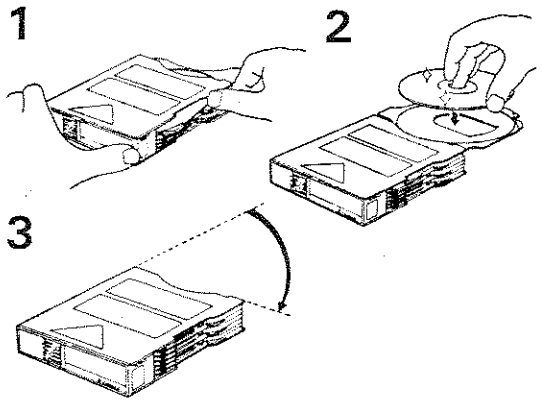
- With this unit, use discs which display the mark shown below. (Optical audio digital discs.)
- When holding discs, do not touch their signal surfaces. Hold the edges, or one edge and the center hole.
- Do not affix labels or adhesive tape to the label surfaces. Also, do not scratch or damage the label.
- Discs rotate at high speed inside the unit. Do not use damaged (cracked or warped) discs.



CD lens cleaner

The player's pickup lens should not become dirty in normal use, but if for some reason it should malfunction due to soiling, ask your nearest PIONEER authorized service center. Lens cleaners for CD players are commercially available, but special care should be exercised in their use since some may cause damage to the lens.

INSERT DISCS INTO THE SUPPLIED SIX-DISC MAGAZINE



Insert any discs which you may have into the supplied magazine. Up to six discs may be inserted. The numbering of the discs begins with 1 at the topmost tray, and increases in order downwards, to 6 for the lowest tray. The magazine has a window through which the pulled-out disc tray can be checked. Even during playback, the number of the disc being played back can be checked through this window.

1. **Pull out only one disc tray.**
2. **Position discs with the label side downward.**
3. **Push the disc tray back as it was originally.**
4. **Insert other discs by repeating steps 1 to 3.**

NOTES:

- *Please make sure to only pull out one disc tray at a time. (When a disc tray has been pulled out, do not pull out other disc trays.)*
- *If discs are inserted label side upward, it will not be possible for them to be played. Please make sure to insert them with the label side downward.*
- *Objects other than discs (song cards, explanations of disc contents, etc.), must never be inserted into the disc trays.*
- *Do not touch the playing surface of discs (the iridescent side) with hands or fingers.*

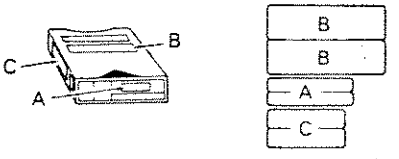
Additional magazines identical to the one supplied are available as options *(JD-M100, JD-M200, JD-M300, JD-M308, JD-M108).
Please use them to make your own disc library, with separate magazines for each artist or genre.

*JD-M100, JD-M200, JD-M300
..... Magazine for six 12-cm discs.
JD-M108, JD-M308 ... Magazine for six 8-cm discs.

NOTE:
Both 12-cm discs and 8-cm discs cannot be installed together in a magazine.

AFFIXING LABELS TO SIX-DISC MAGAZINE

- Always attach the labels provided in the designated locations. Correct operation may not be possible if labels or tape are attached in other locations.



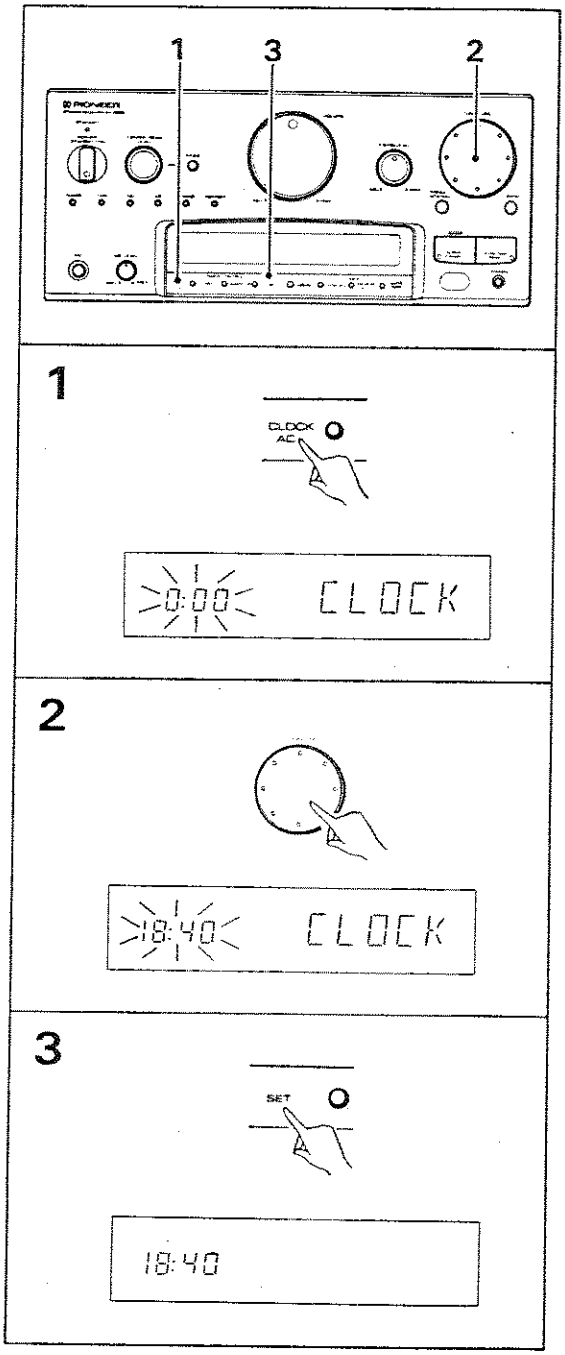
- The following are convenient ways of using labels:
  A: For titles
  B: For disc names
  C: For classification
- Do not attach on top of other labels.

NOTES:

- *In order to play an 8-cm CD you will need a special Multi-Play Magazine (JD-M108, JD-M308) which is sold separately. Be sure to read thoroughly the Operating Instructions before using it.*
- *8-cm CD adaptor*
  It is possible that even an adaptor which meets recommended standard CD specifications will not be usable with the CD player. It is recommended that the special Multi-Play Magazine (JD-M108, JD-M308) be used.
- *Never load an 8-cm CD or its adaptor into a standard 12-cm magazine. This may seriously damage the CD player.*
- *Do not install only an 8-cm disc or only the adaptor.*

CAUTIONS REGARDING HANDLING OF MAGAZINES

- When inserting a magazine into the player, make sure that the direction of insertion is correct.
- After use, store in the case provided. Do not place in locations subject to high temperatures or exposed to direct sunlight.
- Do not take magazines apart.
- Be careful not to drop or hit magazines against things. Also, do not apply strong force to trays which have been withdrawn.
- Application of benzene, thinner, insecticide or other volatile liquids to a magazine may damage the surface, so prevent contact with such substances.



SETTING THE CLOCK

[Example] Setting the time to 18:40.

1. **Press the CLOCK ADJ button.**
2. **Rotate the TUNING JOG control to set the hours and minutes.**
3. **Press the SET button when "00" seconds of that minute are reached for precise adjustment.**

- After connecting to an AC outlet, be sure to set the present time. Timer playback and timer recording are not possible unless the time has been set.
- The time display will appear as "– –:– –" when the power is restored following a power failure, or if the power cord has been disconnected.

PREPARATION

Press the POWER switch of the stereo receiver and compact disc player.

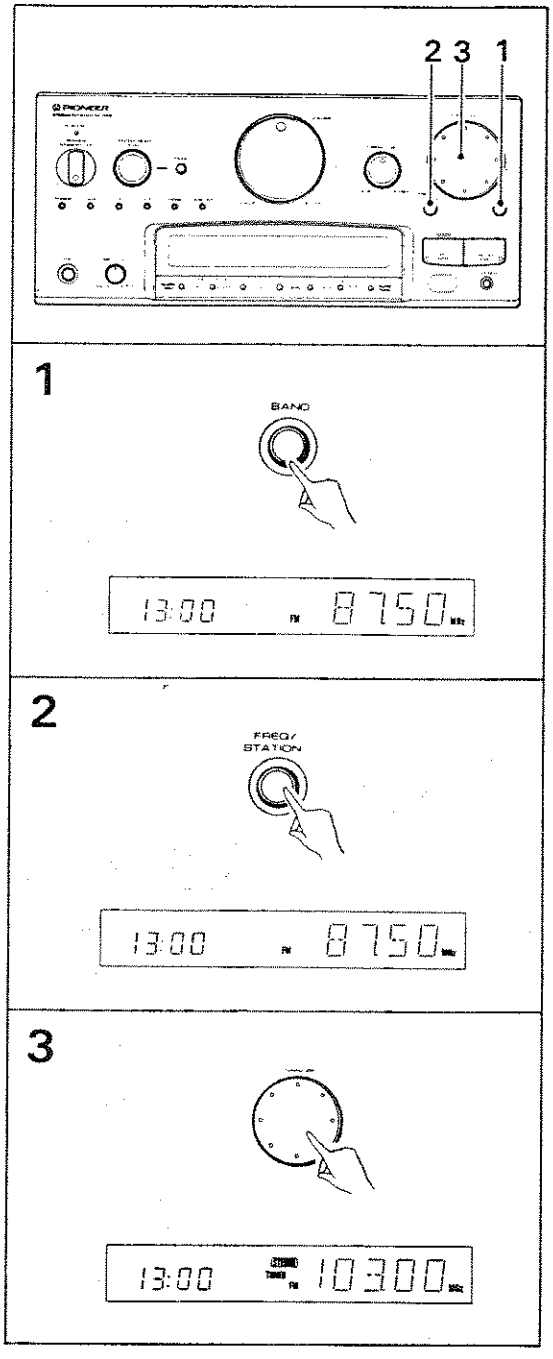
Select an FUNCTION button.

AUTO FUNCTION

Since this system utilizes automatic functions, operating the cassette deck, CD player, or tuner controls (station selection, FM/AM band selection) will automatically result in the automatic switching of the receiver's function (CD or tape playback will not stop, however).

NOTE:

Function cannot be switched during recording. (Auto function also does not operate during recording.)



TUNER OPERATIONS

TUNING INTO STATIONS

1. **Select the desired broadcasting band using the BAND button.**
2. **Press the FREQ/STATION button and set to frequency mode (when set to frequency mode, the receiver display indicates the time).**
3. **Rotate the TUNING JOG control or press the the AUTO-TUNE button to select the desired frequency.**

[Auto Tuning]

Press the Auto Tuning control to change the frequency automatically. If a program is received, the unit stops and the message TUNED is displayed.

NOTE:

- *When auto tuning is in use, reception may not be possible for distant stations or when signals are weak. At these times manual tuning is recommended.*

[Manual Tuning]

Rotate the TUNING JOG control slowly. When a broadcasting station's frequency is received, the [TUNED] indicator will be shown in the display section. The station frequencies will change more rapidly if the control is rotated continuously more than one turn when the unit is stopped. The station frequencies stop changing when the control rotation stops.

MONO indicator

If stereo reception is weak or noisy, set the CD/TUNER select switch to TUNER, then press the FM MONO button on the remote control to light the [MONO] indicator.

Press the FM MONO button on the remote control to light the [MONO] indicator. The noise will decrease, although the broadcast is now received in monaural.

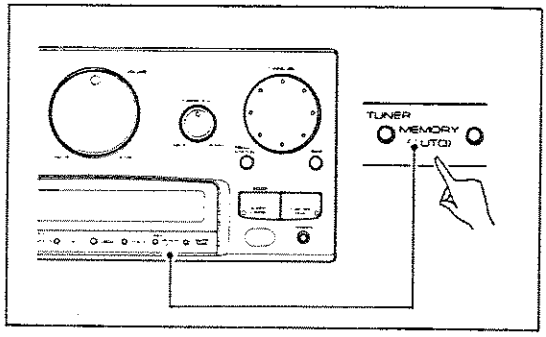
4. **Adjust the VOLUME control on the receiver and the tone with the sound field processor.**

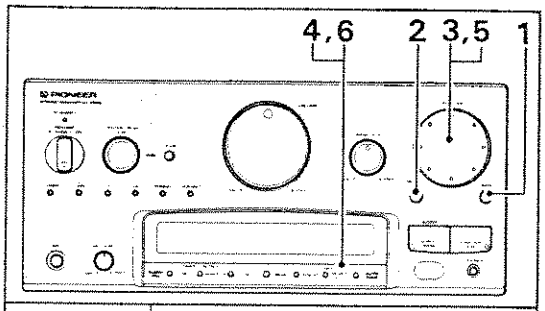
STEREO/MONO receiving

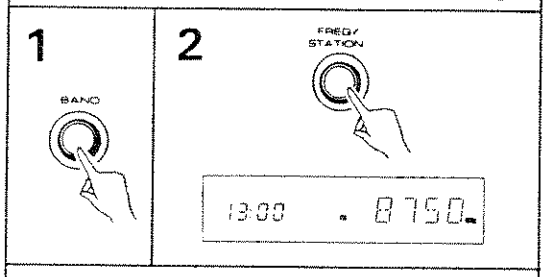
When receiving a Stereo signal, the [STEREO] indicator will light, if the FM MONO button on the remote control is set to OFF (the [MONO] indicator is OFF).

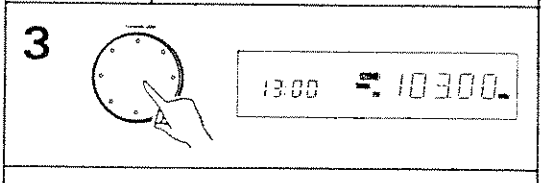
LOCAL indicator

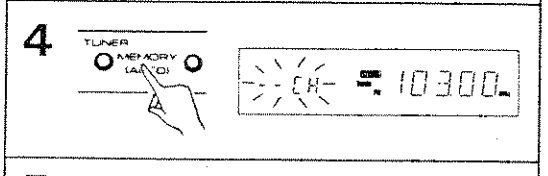
If the broadcast station is very near, the FM broadcast signal may be too strong, resulting in noise and distortion. In this case, press the LOCAL button. The [LOCAL] indicator lights.

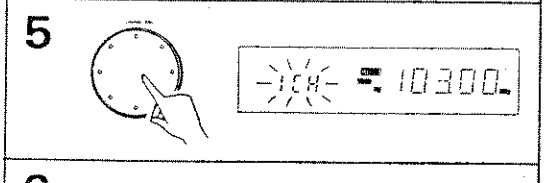


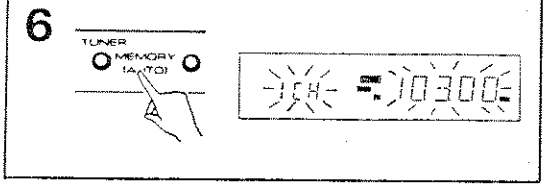












MEMORIZING STATIONS

Up to 36 FM/AM stations can be preset (memorized) in the unit in random order

AUTO PRESET

- If memory presetting is begun from the FM band, the operation will switch automatically to AM band presetting after the setting of the FM band stations is completed.

Hold the MEMORY button pressed for 5 seconds.

The "Auto" display will appear, and the auto preset function will begin.

From the stations in the FM and AM reception range, stations will be stored in the order they are displayed on the TUNED indicator. The operation begins from the currently displayed frequency.

NOTE:

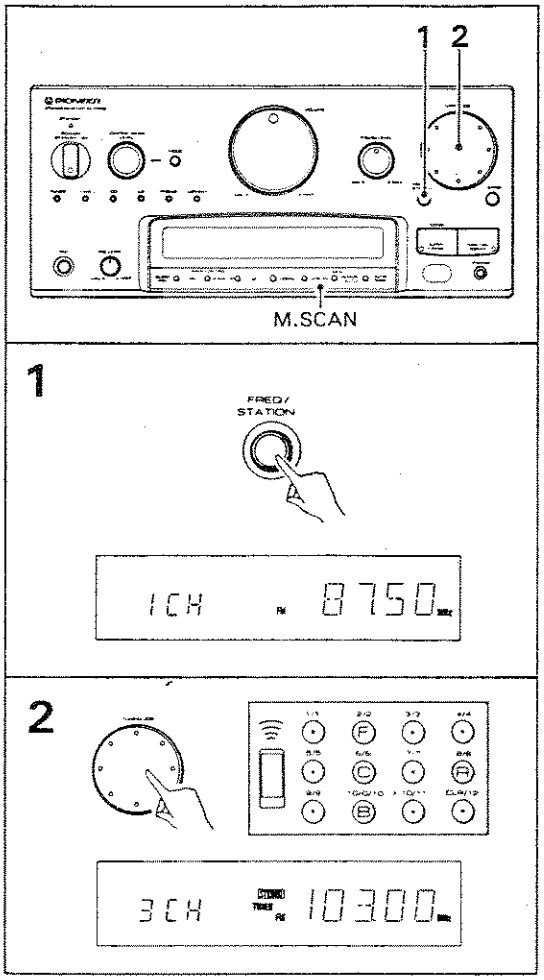
When either the LOCAL or FM MONO button is in its ON position, the button's function will automatically be turned off before the unit begins the auto memory function.

MANUAL PRESET

1. **Use the BAND selector button to select either FM or AM.**
2. **Press the FREQ/STATION button to select the frequency mode (when frequency mode is selected, the receiver display will show the time).**
3. **Rotate the TUNING JOG control and receive the desired station frequency.**
4. **Press the MEMORY button.**
   - The display will flash for approx. 5 seconds.
5. **Rotate the TUNING JOG control and select the station you wish to store, while the channel indicator is still flashing.**
6. **Press the MEMORY button.**
   - The channel display and frequency will flash, indicating they are stored in the memory.

NOTE:

When an FM station is stored in memory, the ON/OFF status of the LOCAL and FM MONO buttons is simultaneously stored with the station.



RECEPTION USING PRESET TUNING

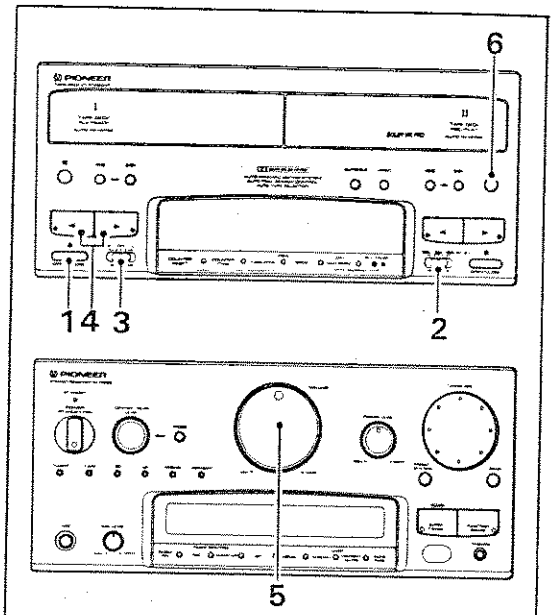
1. **Press the FREQ/STATION button and set to station mode.**
   When the unit is in the station mode, the channel will be shown in the display section.
2. **Rotate the TUNING JOG control to find the desired channel.**
   When using the remote control unit, set the CD/TUNER select switch to the TUNER position and press the number buttons (1—12) to select the desired channel. Press a number button once for Mode 1 (1—12), twice for Mode 2 (13—24) and three times for Mode 3 (25—36)
   [Example] If you press button "1".
   once ..... station 1
   twice ..... station 13
   three times ..... station 25
   - When the M. SCAN button is pressed, the stations preset in the channel will be heard for 5 seconds each.
     When you hear a broadcast that you wish to listen to, press the M.SCAN button once again to resume normal reception.

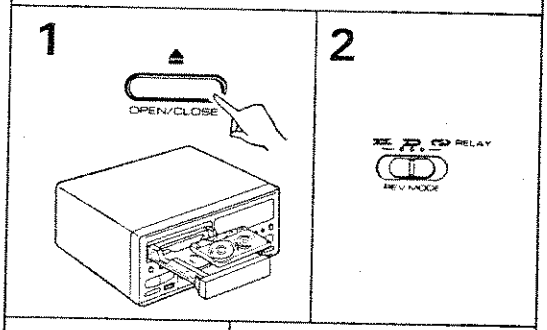
Last Station Memory Function

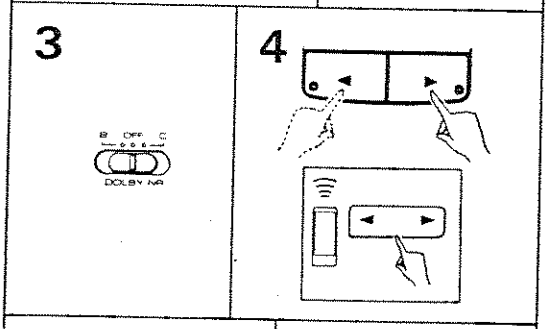
When the power is turned on the receiver's function is set to TUNER, the tuner will receive the last station tuned before the power was previously turned off. The last station memory will cease to function if the power cord is disconnected from its electrical outlet.

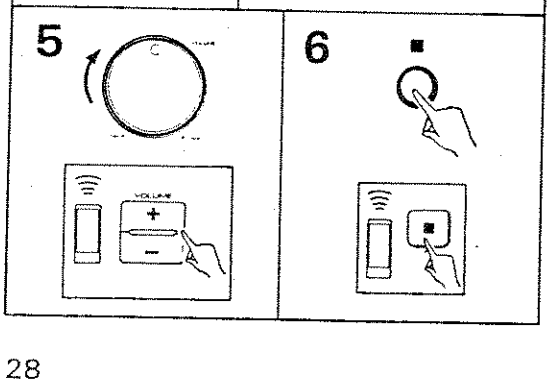
Channel Memory

The preset station memory will retain its contents even when the power switch is turned off or the power cord disconnected, so long as the power cord is not left disconnected for more than a few days.









CASSETTE DECK OPERATIONS

TAPE PLAY

Tapes may be played back in Deck I or Deck II but not in both decks at the same time.

- Items including the [▯] mark can be performed using the remote control unit.

1. **Press the OPEN/CLOSE button (⏏), and load a recorded tape.**
   Set the cassette in the cassette tray with the exposed tape pointing down. When the OPEN/CLOSE button is pressed again, the cassette tray will close.
2. **Select the REV MODE switch**
   ⇉ : One-sided play.
   ⇄ : To play both sides of a tape.
   ⟲ : Up to 16 tape sides will be played.
3. **Set the DOLBY NR switch to the same position used for recording.**
4. **Press the play button (▶ or ◀).**
   Press play button of the loaded deck.
   ▶: Forward playback.
   ◀: Reverse playback.
5. **Adjust the VOLUME control on the receiver and the tone with the sound field processor.**
6. **To stop playback, press the stop button (■).**

Auto Stop Mechanism

The mechanism stops automatically when the end of tape is reached.

NOTE:

- *When the play button (◀, ▶) of one deck is pressed while the other deck is in playback mode, the currently playing deck stops and the other deck starts playback.*
- *If the power is turned off the tape cassette tray may not open even if its OPEN/CLOSE button (⏏) is pressed. In this case, turn on the power once again and press the OPEN/CLOSE button (⏏).*

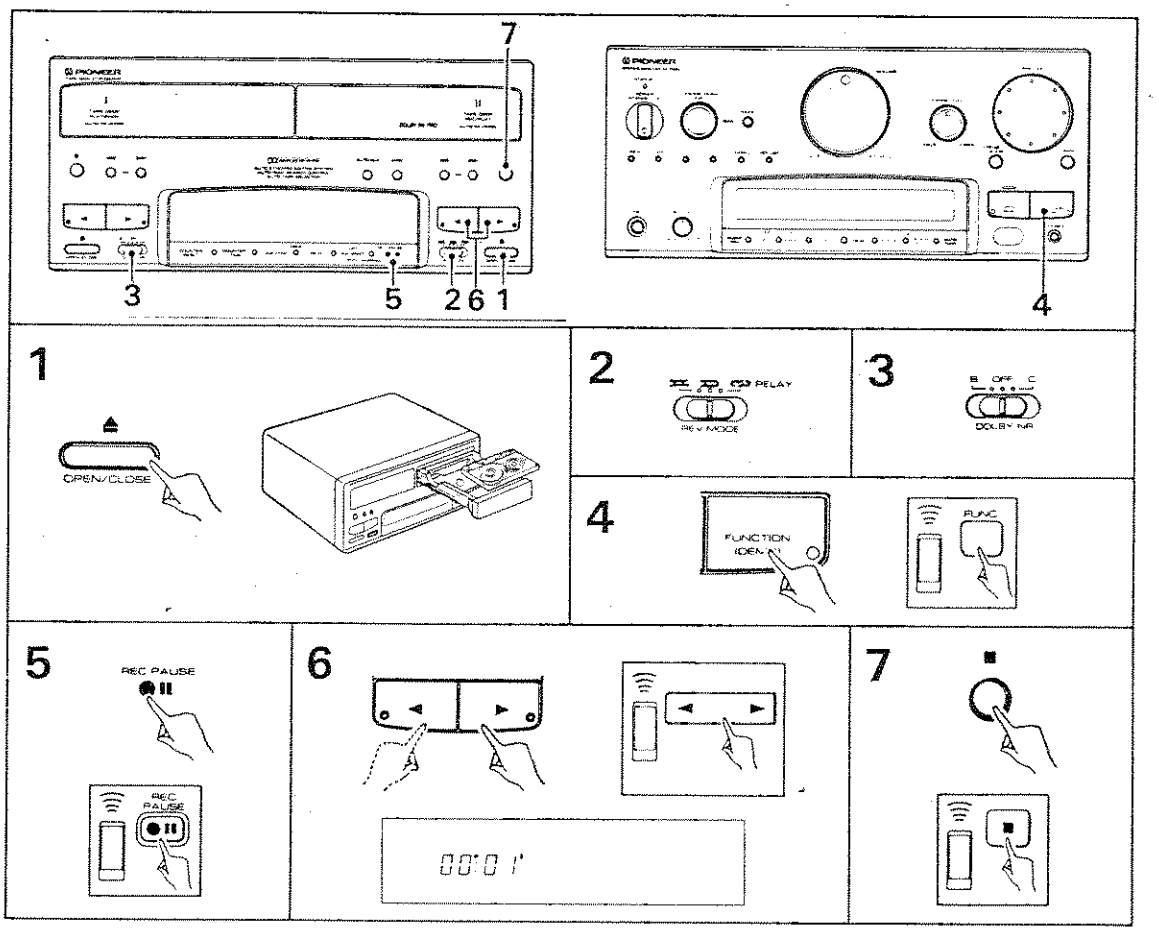
CLEANING THE HEAD SECTION

To enjoy perfect performance and high-quality sound, clean the head periodically (once every 10 hours).
A head cleaning cassette is necessary for cleaning of the recording/playback heads.
Please use a commercially available "Wet type" cleaning cassette. (For details, refer to the instructions supplied with the cleaning cassette.)

Caution:

- *Some head cleaning tapes are not designed for use on auto-reverse decks. Be careful since there is a danger that you will not be able to remove the cleaning cassette. Ask your PIONEER authorized service center or dealer.*
- *Do not use a cleaning tape which does not conform to the specified standards.*
- *Do not use the dry-type cleaning cassette tapes.*
- *After cleaning the head, do not load a cassette tape until the cleaning liquid is dried, which takes about 2 or 3 minutes.*

RECORDING ONTO A CASSETTE TAPE



Recording can be performed on Deck II only. Recording is not possible on Deck I. You can make a recording of a source which has been processed with the sound field processor.

1. **Press the OPEN/CLOSE button (⏏), and load the tape for recording into Deck II.**
   - Check to see that the accidental erasure prevention tabs are not broken off.
   - Wind the tape forward past the leader to the start of the magnetic coated portion.
   - Set the cassette in the cassette tray with the exposed tape pointing down. When the OPEN/CLOSE button is pressed again, the cassette tray will close.
2. **Select the REV MODE switch.**
   ⇄ : When recording on one side of a tape.
   ⇉ and ⇄ : When recording on one side of the tape and then on the other (from forward to reverse direction only).
3. **Set the DOLBY NR switch to the desired position.**
   - A tape which has been recorded using the DOLBY NR system must be played back with the same type.
4. **Use the receiver function button to select the recording device.**

Program source	Selected indicator	Operation
Radio broadcast	TUNER	Tune into a broadcast.
Compact disc	CD	Play a compact disc.
LaserDisc	LD	Play a LaserDisc
Record	PHONO	Operate the turntable.
Equipment which is connected to VCR/DAT jacks	VCR/DAT	Operate the equipment connected to VCR/DAT jacks.

5. Press the REC PAUSE button (● ▮▮).

- The recording indicator lights.
- The direction indicator flashes.
- When the APSC function is operated, recording is performed while automatically setting the optimum recording level.

6. Press the appropriate play button (▶ or ◀).

The receiver display section will function to show the elapsed recording time.

- Next, begin playback of the component selected for recording in step 4.

7. To stop recording, press the stop button (■).

- The function selector will not operate during recording.
- This unit's recording level has been previously set, but the APSC (Auto Peak Search Control) is provided to allow even better recording results.

Auto reverse function

This unit uses rotary type recording and playback heads, and the same heads are used in both forward and reverse directions.

Tape-end detection is employed to activate auto reverse operation which takes approx. 2 second after the tape is taken up.

NOTE:

A leader tape with a length equivalent to approx. 5 seconds is attached to an ordinary cassette tape. This means that for two-way travel of the leader tape there will be a break of approx. 11 seconds in the sound. Be very careful of this, particularly when making a two-way recording.

AUTOMATIC TAPE SELECTOR FUNCTION

This unit (Deck I and Deck II) is equipped with an automatic tape selector function which utilizes the sensor holes on the tape cassette to determine the type of tape (TYPE I, II, IV) being used, in order to set the deck to match the tape recording bias and equalization.

Pausing and restarting recording

1. Press the REC PAUSE button (● ▮▮).

- Recording will be suspended.

2. To restart recording, press the play button whose indicator is flashing (▶ or ◀).

About the Counter Settings

- During recording, if the COUNTER/TIME button is pressed to switch to the time counter display, the deck's display will change to show the elapsed recording time.
- If the RESET button is pressed when the display is set to the tape counter, the display will change to "00 00".

  If the RESET button is pressed when the display is set to the time counter, the counter display will change to "00:00".

Recording muting

When recording, this can be used to create a blank no-signal area between tracks.

Keep the MUTE button (O) of the remote control unit pressed during recording for the length of the blank space that you wish to create. When you release the button, the unit will enter the recording pause mode.

If the MUTE button is pressed once during recording, a silent interval of about 4 seconds duration is recorded, after which the deck is set automatically to the recording standby mode.

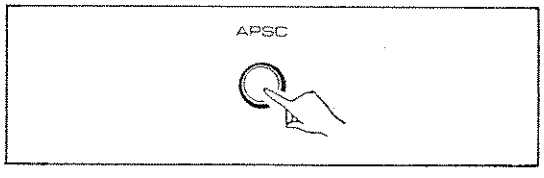
NOTE:

- *The MUTE button does not operate in high-speed tape copy mode.*
- *If you press the MUTE button while recording is taking place, a nonrecorded portion will be created. Be careful, therefore, not to press the button other than when necessary.*

■ Recording at the desired sound field

- Use the sound field processor to create the desired sound field. Recording is possible after the field is set. After the desired sound is created perform the recording operation. When recording in the ⊡⊡ MODE (PRO LOGIC NORMAL and 3CH LOGIC), the center is not recorded and the vocal and other effects are lost during playback. This type of recording is not recommended for this reason.
- Even if the SUPER P. BASS is set ON, sound can be recorded in the OFF condition.
- When replaying a recorded tape in the desired sound field, use the EFFECT/DIRECT button of the sound field processor to set the effect OFF.
- Distortion may occur in sections of recording due to the strength of the source and sound field effects. Reduce the strength of the effect before recording if this occurs.

APSC (Auto Peak Search Control)



- This function automatically sets the recording level to match the peak level of the source to be recorded.
- The recording level has been previously set even if you do not use this function; use of the APSC allows even higherquality recordings to be produced.

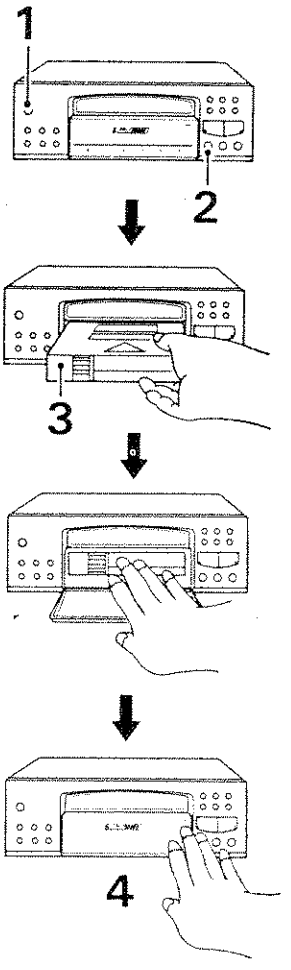
Before beginning recording, press the APSC button: The APSC indicator will light.

Begin recording after confirming the APSC indicator is lighted. In this way, the optimum recording level will be set automatically during recording, in accordance with the source selected.

NOTE:

- *To cancel the APSC function, press the APSC button once more and confirm that its indicator goes out. (The function cannot be turned on or off during recording.)*
- *The APSC function cannot be used during timer recording.*
- *The APSC function turns off automatically when the tape-copy or A.S.E.S. functions are initiated.*

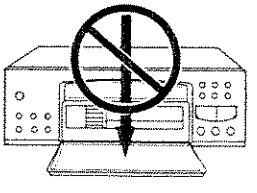
OPERATION PROCEDURES BEFORE PLAYBACK (Insertion of magazine)



1. Press POWER switch to turn power ON.
2. Press OPEN/EJECT button and open the door.
3. Insert a magazine, pushing it in until a click sound is heard.
4. Press on the door's "LOCK" sign to close the door. When the door locks, a clicking sound can be heard.

NOTE:
When the door is open do not place strong pressure or heavy loads on the door, since damage may result.

Excessive force, heavy objects



PROCEDURES AFTER PLAYING (Removal of magazine)

1. Press OPEN/EJECT button and eject the magazine.
2. Pull the magazine forward and remove it.
3. Close the door.
4. Press POWER switch to turn power off.

OPERATION FOR NORMAL PLAYBACK (▶)

Playback of all tracks, from the first track on the first disc, to the last track on the sixth disc.

1. Carry out "OPERATION PROCEDURES BEFORE PLAYBACK".
2. Press Play/Pause button (▶/❚❚).
   The (▶) indicator will light, and playback will begin. The indicators will display the disc number and track number currently being played and the elapsed playback time.
3. Adjust VOLUME control on the receiver and tone with the sound field processor.
   When the last track on the sixth disc finishes playing, the player enters stop mode. All operations stop and the player stops with the number of the first track on the first disc "01", showing on the indicator.

Caution:
Do not turn the power off during playback as this may damage the disc.

TO START PLAYING BACK FROM A DESIRED TRACK (DIRECT DISC AND TRACK SEARCH OPERATION)

During playback or stop mode, playback will begin from the track selected by specifying the disc number and track number, and will continue to the last track on the sixth disc.

Operation example:

During stop mode, to play back the third track on the fifth disc:

1. Press DISC NUMBER button 5.
2. Press Manual/Track search button (▶▶ • ▶▶|) 2 times.

- If only a disc number is selected, playback will begin from the first track on the specified disc.
- If only a track number is selected, playback will begin from the specified track on the disc for which the player is in playback or pause mode.
- When using the remote control unit to select tracks, either track search buttons (|◀◀, ▶▶|) or number buttons can be used. When using the remote control unit's number buttons, be sure to set the CD/TUNER select switch to CD first. (When using the number buttons to select tracks, press the buttons corresponding to the tracks you wish to hear. To select tracks higher than 10, first press the >10/11 button, then input the track number.

For example, to select track track 12, press >10/11, followed by 1/1 and 1/2. The 10/0 button functions as "0".

3. **Press Play/Pause button (▶/❚❚) only when the remote control unit's DISC select button is used to select the disc.**

NOTES:

- *When a track number of a track not on the disc is selected, playback starts from the first track.*
- *Track selection cannot begin from the disc number of a magazine tray which does not contain a disc.*
- *Performing a direct disc search operation during random playback causes random playback to be cancelled.*
- *Playback from a direct disc or track search is not possible when a program is being input in stop mode.*
- *When no magazine is inserted and either Play/Pause button (▶/❚❚), RANDOM PLAY button, HI-LITE SCAN button (remote control unit), or the DISC NUMBER button is pressed, the display will show "dISC" for about 2.5 seconds.*

TO STOP PLAYBACK (■)

1. **Press stop button (■).**
   - When stop button (■) is pressed during normal playback, the indicator will show the first track of the disc which was playing, and the unit will stop. If the button is pressed again, the first track of the first disc will be displayed.

PAUSE OPERATION (❚❚)

1. **With the player in the playback mode, press Play/Pause button (▶/❚❚).**
   The [❚❚] indicator will light, and the player will pause immediately.
2. **To resume playback, press Play/Pause button (▶/❚❚) again.**

TO LOOK FOR A DESIRED TRACK (⏮, ⏭) (TRACK SEARCH OPERATIONS)

During normal or programmed playback, or during the pause mode, these functions allow you to quickly find the beginning of a desired track. Any number of tracks can be skipped during the search process when so desired.

- When Manual/Track search button (⏭ • ⏭) is pressed once, playback advances to the beginning of the next track. When pressed again, playback is advanced to the beginning of succeeding tracks. (During programmed play, playback advances to the beginning of the next programmed step.)
- When Manual/Track search button (⏮ • ◀◀) is pressed once, playback returns to the beginning of the currently playing track; when pressed again, playback shifts to previous tracks on the disc. (During programmed playback, playback returns to the previous programmed step.)

The disc number and track number of the track currently being searched for will be displayed on the indicator; watch this indicator while searching for the desired track.

FAST FORWARD AND REVERSE (◀◀, ▶▶) (MANUAL SEARCH OPERATIONS)

During playback or pause modes, this function allows you to quickly advance or reverse through the disc to find a desired part. Listen to the sound from your speakers or headphones while performing the search. (During playback mode only.) When the switch is released the player returns to its original mode (playback or pause).
During pause, high-speed search is possible. However, no sound will be output.

- When Manual/Track search button (▶▶ • ⏭) is pressed continuously, the player will advance quickly through the disc. If the end of the disc is reached, the player will enter the pause mode. (The word "E:nd" will be displayed by the indicator.)
  The pause mode can be cancelled by pressing Manual/Track search button (⏮ • ◀◀).
- When Manual/Track search button (⏮ • ◀◀) is pressed continuously, the player will reverse quickly through the disc. If the beginning of the disc is reached, the player will enter the playback mode.
- The remote control unit's track search buttons (⏮, ⏭) cannot be used for performing manual searches.

During the search operation, the elapsed time will be displayed on the indicator; watch the indicator while searching for the desired part.

NOTE:

During programmed playback, fast forward and reverse operations will be effective only for the currentlyplaying track.

Also, when using Manual/Track search button (▶▶ • ⏭), the player will enter the pause mode right before it goes to the next program step. When using Manual/Track search button (⏮ • ◀◀), the player will enter the playback mode right before it goes to the previous programmed step.

NOTE:
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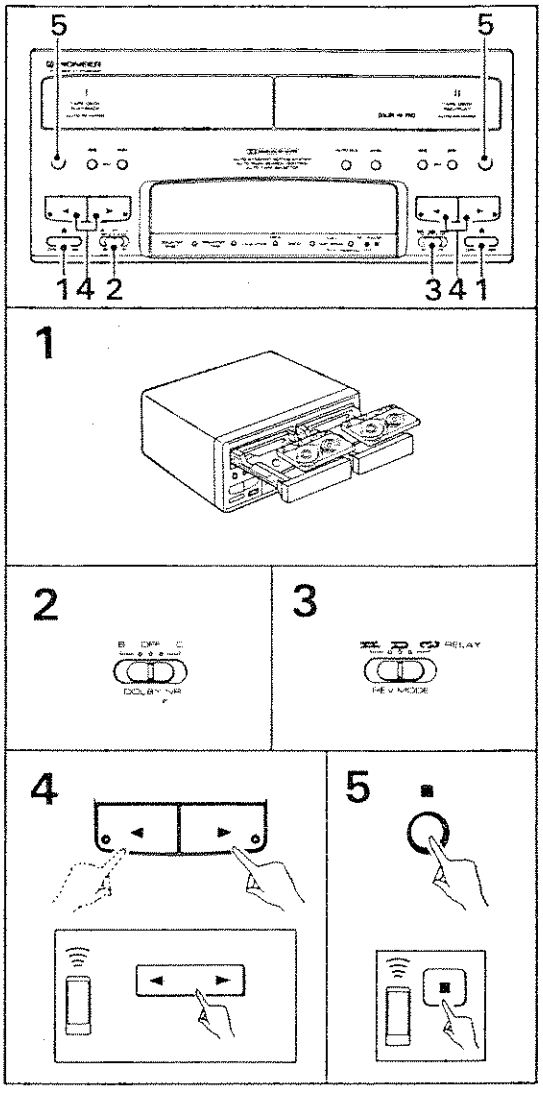
CASSETTE DECK APPLICATION GUIDE



CASSETTE TAPE RELAY PLAYBACK

- Relay playback is repeated as follows:
  ┌→Deck I forward play (▶)→Deck I reverse play (◀)┐
  └Deck II reverse play (◀)←Deck II forward play (▶)←┘
- Relay playback can be performed a maximum of 8 times (max 32 sides).
- If a cassette tape has been loaded in only one deck, continuous playback will be performed up to a maximum of 16 sides.

1. **Load the playback tapes into Deck I and Deck II.**
2. **Set the DOLBY NR switch to the same position used for recording.**
3. **Set the REV MODE switch at ⇆ (RELAY) position.**
4. **Press the appropriate play button (▶ or ◀) on Deck I or Deck II.**
5. **To stop relay playback, press the stop button (■) of the operating deck.**

MUSIC SEARCH

This function lets you search for a track during fast forward and fast reverse. You can search up to a maximum of 15 tracks before or after the song you are listening to.

When searching during forward (▶) playback:

To go to the beginning of the next track after the currently playing track, press the [▶▶] button once. To search for subsequent tracks, press the [▶▶] button the same number of times as the number of the tracks you wish to skip ahead to.

When you are searching for a previous track, press the [◀◀] button the desired number of times plus one.

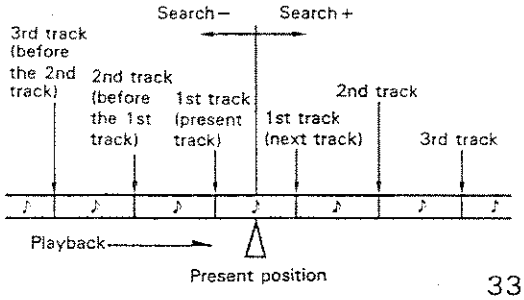
When searching during reverse (◀) playback:

To go to the beginning of the next track after the currently playing track, press the [◀◀] button once. To search for subsequent tracks, press the [◀◀] button the same number of times as the number of tracks you wish to skip ahead to.

When you are searching for a previous track, press the [▶▶] button the desired number of times plus one.

How to count the track number

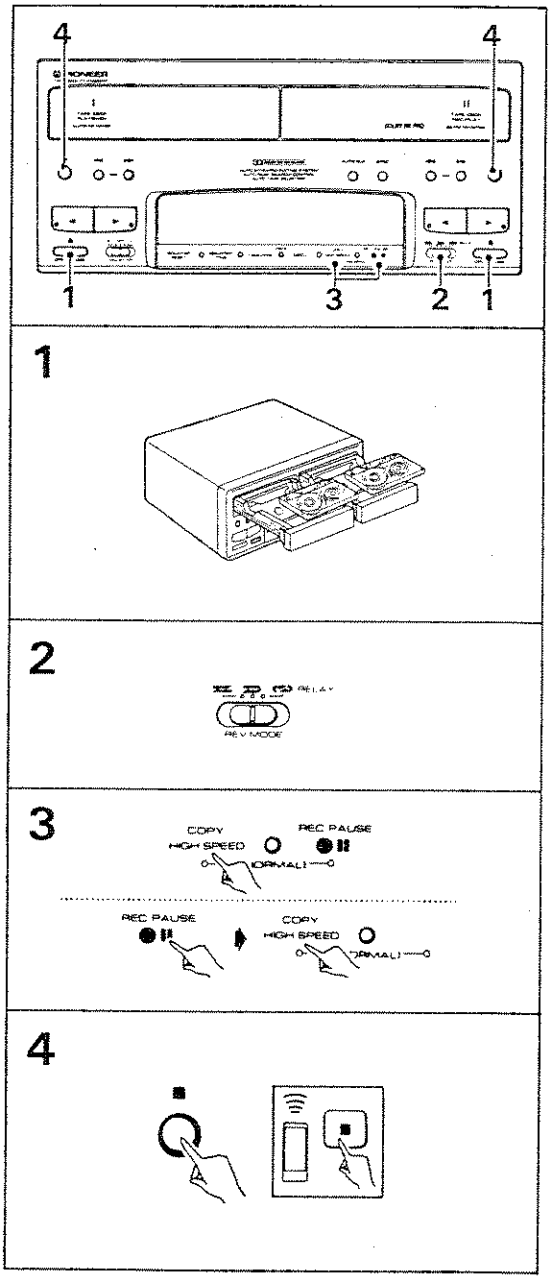
When you select a track you want to search for during playback, if you set it for "one track before", you will return to the beginning of the track you were listening to. If you want to return to the track before the one you are listening to, add one to the number.



NOTE:

Performing music search on the following types of tape may not be possible: this is not a unit malfunction, however.

- *A tape whose unrecorded portions between tracks are less than 4 seconds long.*
- *A tape with high noise level between tracks.*
- *A tape with low level or silent passages of several seconds in the same track, such as classical music.*
- *A tape, such as a conversation tape where sound is intermittent.*



- *If you are performing high-speed copying near a television, interference (a high-pitched sound) may be recorded on the tape. If such interference occurs, perform copying at normal speed, or turn off the television set.*
- *If you are using a TV in the vicinty of the unit, noise will be recorded. Either turn off the TV or move it away from the unit.*

COPYING TAPES

Duplicating the recorded contents of one tape onto another tape is known as tape copying. The contents of the tape in Deck I can be copied onto the tape in Deck II (but not vice versa.) Copying is not possible while either deck is operating. You cannot record a source using the graphic equalizer.

The deck II tape is recorded in the same condition as the deck I tape, regardless of DOLBY NR switch position. For example, when copying a Dolby C-type NR encoded tape, the deck II tape is also recorded with Dolby C-type NR.

1. Load the recorded tape into Deck I and the tape for recording into Deck II.

- Wind the tape forward past the leader to the start of the magnetic coating portion.
- When using tape copy at the high-speed setting, recording begins from the forward direction (▶). When using tape copy at the normal-speed setting, recording and playback begin in the directions shown by the respective lighted indicators on deck I and II.
- Make sure there is no tape slack.

2. Select the REV MODE switch.

- To perform normal copying while listening to the playback, set the receiver's FUNCTION to TAPE, and set the DOLBY NR switch.

Even if the FUNCTION button is set to another position, tape copying will still proceed. The sound of the program source selected by the FUNCTION button will be heard through the speakers.

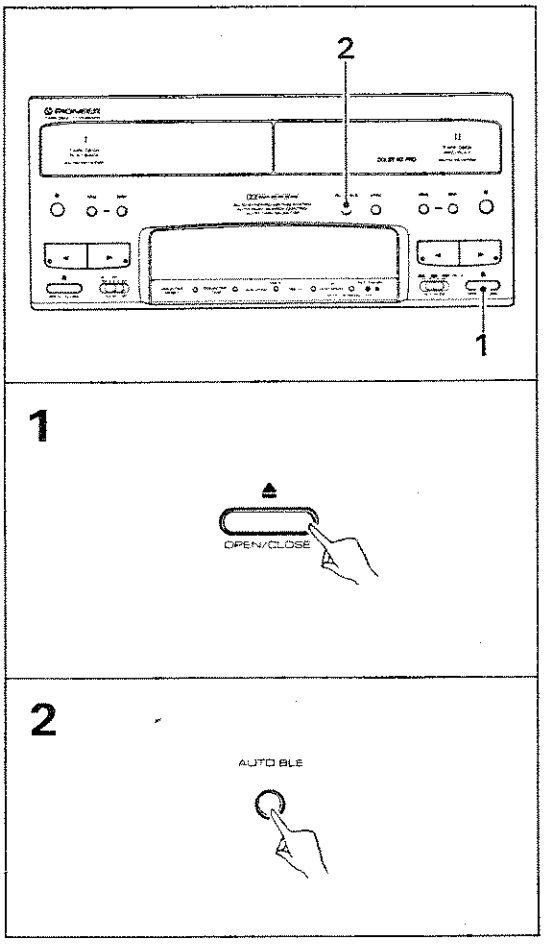
3. Begin tape copy.

- To copy at high speed: Press the COPY button.
- To copy at normal speed: Press the REC PAUSE button (● ❚❚) and then press the COPY button.

4. Press the stop button (■) on either deck to stop the copying at any time.

NOTE:

- *During normal-speed tape copying, the REC PAUSE button (● ❚❚) and remote control unit's MUTE button (O) can be used if desired. These buttons cannot be used, however, during high-speed copying. When starting a copy again, press the play button where the indicator lights.*
- *There is variation in actual tape length even among cassettes of the same length label (C-60, C-90, etc.). Therefore, even if the recording tape is labeled as the same length as the playback tape, it is possible for the recording tape to end first without recording all of the contents of the playback tape.*



AUTO BLE

• AUTO BLE

In cassette tapes available on the market, even tapes of the same position, there are slight differences in tape sensitivity and frequency characteristics. To take full advantage of a tapes characteristics, and thereby assure faithful recording of a source, it is necessary to set the optimum recording bias, recording level (sensitivity), and equalization. In most conventional tape decks, these settings are adjusted and fixed using a standafrd tape as reference. This means that regular decks are not able to deal with the slight differences of individual tapes.
With AUTO BLE system, bias, sensitivity, and equalization are automatically adjusted by a microprocessor to achieve the optimum recording characteristics for each tape.

• Details concerning AUTO BLE operation

Press the AUTO BLE button, and built-in oscillation circuitry operates to record a measurement signal. A microprocessor takes this signal, and makes the appropriate adjustments to settings to achieve the optimum recording characteristics for each tape. After the settings have been made, the tape is automatically rewound to the beginning. When recording begins, the measurement signal is completely erased. This adjustment is only effective during recording.

- You can switch to any type of Dolby NR when using AUTO BLE. And after adjustments have been made, even if you change the type of Dolby NR, it has no effect on AUTO BLE operation.
- To enable adjustments to be made, a measurement signal is recorded onto the tape, erasing any music or other material recorded at the point where recording begins.
- During AUTO BLE operation, playback and fast forward operations are not possible.
- During recording, recording pause, and recording mute operation, settings cannot be canceled even if you press the AUTO BLE button.
- If you change the cassette tape after setting the Auto BLE, the BLE setting must be performed again.

1. Press OPEN/CLOSE button (⏏), and load the tape for recording into Deck II. Close the cassette tray.

- Check to see that the accidental erasure prevention tabs are not broken off.
- Make sure that there is no tape slack.

Take note of the play buttons indicating the tape direction. AUTO BLE operates in the indicated direction.

2. Press AUTO BLE button.

During adjustment of AUTO BLE, the AUTO BLE button will flash. When the adjustment has been completed, the AUTO BLE button and the cassette deck display's TUNE indicator will light steadily.

- Press the STOP button on deck II to interrupt the AUTO BLE system.
- To cancel the AUTO BLE system setting after adjustment has been completed, press the AUTO BLE button once again. When canceled, the AUTO BLE button and TUNE indicator will turn off.

Error display:

When using old or worn out tapes, or performing setting adjustments near the tape end, it may not be possible to make any adjustments. In such cases, "ERR" flashes in the counter display section. Press the AUTO BLE button to cancel AUTO BLE operation, fast forward or rewind the tape for a few seconds, and press the AUTO BLE button once more to perform adjustments. If "ERR" is displayed again, record without using AUTO BLE, or change the tape. Use AUTO BLE with the deck first in the stop mode.

■ The Dolby NR Systems

The Dolby NR systems are designed to reduce high-frequency noise (tape hiss) generated during playback. The level of low-volume, high-frequency sounds is increased during recording, and decreased by the same amount during playback to restore the original level. At the same time, high-frequency noise (the most easily perceived by the human ear) is attenuated as well.
Dolby B-type NR reduces high-frequency tape noise, widening the dynamic range.
Dolby C-type NR is even more powerful, applying the noise reduction effect to a wider spectrum of frequencies from the middle range.

■ The Dolby HX PRO Headroom Extension System

When recording audio signals on a magnetic tape, high-frequency signals are recorded on top of each other (recording bias) in order to compensate for the tape. Recording bias depends on the frequency of the recorded sound, but generally it is fixed to a value which gives acceptable results over the whole frequency range.
The HX PRO system reads in the signal at the recording head, adjusting recording bias amplitude according to the signal condition to achieve optimum recording characteristics.

CD APPLICATION GUIDE

OPERATIONS FOR REPEAT PLAYBACK

Single track repeat mode:

The track currently playing will repeat (Single track repeat).

All discs repeat mode:

- During normal playback, all tracks on all discs in the magazine will be played back repeatedly (all discs repeat).
- During programmed playback, the tracks programmed will be played back repeatedly in the order programmed (programmed repeat).
- In the case of random play mode, after all the tracks have been played, random play will start again (random repeat).

1. **With the player in the playback or stop mode, press REPEAT button.**
   When pressed once, the player will enter the single track repeat mode. The [(1)▶REPEAT] indicator will light. If the button is pressed again, all tracks on all disc in magazine will be repeated. The [REPEAT] indicator will light.
2. **When the last track has been played back, playback will begin again from the first track.**
   Playback will be repeated until repeat playback is cancelled.
   - If you wish to perform repeat playback of an entire single disc (one-disc repeat), program all the tracks on the disc (see page 38), then set the unit to the program repeat playback mode.
   - When RANDOM PLAY button is ON during normal repeat playback (repeat playback of all disc), after all the tracks on all disc are played once at random, the same tracks will be played again at random (random repeat is performed repeatedly).
   - During use of the HI-LITE SCAN function, single-track repeat cannot be performed.

TO CANCEL THE REPEAT MODE

Press REPEAT button until [REPEAT] indicator goes off: The player will revert to the normal (or programmed) playback mode.
Press stop button (■): Playback will stop and the repeat mode will be cancelled simultaneously.

RANDOM PLAYBACK

- Each track of all the discs set in the magazine will be played at random. After all the tracks have been played, the player will enter stop mode.

1. **Press RANDOM PLAY button.**
   Random playback will begin.
2. **Pressing RANDOM PLAY button once more will cause the player to select a track at random for playback.**

TO CANCEL RANDOM PLAYBACK OPERATION

Press stop button (■): Playback will stop and random playback operation will be cancelled simultaneously.
- Performing operations for playback from a direct disc search will also cancel random playback.

HI-LITE SCAN (Remote control unit only)

Use the remote control unit to perform this function.
Set the remote control unit's TUNER/CD select switch to CD before performing this operation.
Using this feature will cause 10 seconds of each track on the disc to be played back in order.

- Press HI-LITE SCAN button once to play 10 seconds of one track on each disc at a point about 1 minute after the track beginning.
- During disc scan ([DISC SCAN] indicator blinks), HI-LITE SCAN will be performed for the first track only, on each of discs 1—6.
- Press twice to play 10 seconds of every track on each disc at a point about 1 minute after the track beginning.
- During track scan ([SCAN] indicator blinks), HI-LITE SCAN will be performed for all tracks on each of the discs 1—6.
- To change the playback point, press HI-LITE SCAN button at the desired point whilst in playback mode, and 10 seconds of each subsequent track will be played back from the chosen point.
- Each press of the button causes the function to change alternately as follows:
  ┌→ DISC SCAN → TRACK SCAN─┐

NOTES:

- *To stop the HI-LITE SCAN mode in the middle, press stop button (■). Ordinary playback mode will be resumed by pressing Play/Pause button (▶/❚❚).*
- *When the play time of the track is 1 minute or is shorter than the specified time, the 10-second passage will be played from the beginning of the track. For tracks that are less than 10 seconds in length, the entire track will be played.*
- *Programming of only desired tracks is possible during track HI-LITE SCAN playback, see "DIRECT PROGRAM".*

TO PLAY ONLY DESIRED TRACKS/DISCS

TO PLAYBACK TRACKS IN A DESIRED ORDER (PROGRAMMED PLAYBACK)

- With this function, you can play back the tracks on the discs in any desired order.
- By specifying disc numbers from 1 to 6, and track numbers from 1 to 99, you can select up to 32 steps for playback in any order you like.
- When using the remote control unit to select tracks, either the track search buttons (⏮◀◀, ▶▶⏭) or number buttons can be used. When using the remote control unit's number buttons, be sure to set the CD/TUNER select switch to CD first. (When using the number buttons to select tracks, press the buttons corresponding to the tracks you wish to hear. To select tracks higher than 10, first press the >10/11 button, then input the track number. For example, to select track track 12, press >10/11, followed by 1/1 and 1/2. The 10/0 button functions as "0".

Memorizing a program

1. **During stop mode, press PROGRAM button.**
2. **Select a disc number with DISC NUMBER buttons and a track with Manual/Track search button (⏮◀◀, ▶▶⏭).**
3. **Press PROGRAM button.**
   If PROGRAM button is pressed after a disc number only has been specified, all tracks on the disc will be added to the program.
4. **Repeat procedures 2 and 3.**
   Repeat operations 2 and 3 for each track you want to be memorized, in the order in which you want the tracks to be played. The player can memorize up to 32 steps.
   Each time you program a track, the program step, the number of the programmed disc and track are displayed on the indicator.

NOTE:
If you attempt to program track numbers which do not actually exist on a disc, those track numbers will be deleted from the program during playback.
A pause can be programmed in the same way as a track, by pressing Pause button on the remote control unit (▮▮); however, a pause counts as one step.

NOTE:
A pause cannot be programmed for step 1 (01), nor for two consecutive steps, nor for the last step.

[Application Example 1]
When recording on both sides of a cassette tape: program for a pause to occur after the completion of the last track, before the first side of the tape runs out, to enable recording of the next track to begin after the tape has been turned over.

[Application Example 2]
When recording on a tape: program for pauses to occur between tracks, to allow blank intervals or narration to be recorded on the tape, after which recording can be resumed.

Playback

- Press Play/Pause button (▶/▮▮) to begin programmed playback.
- Playback ends.
  When the last programmed track finishes playing, the player enters stop mode. (All operations stop, and the player stops at the position of the first programmed track.)

CANCELLATION OF PROGRAMMED PLAYBACK AND CLEARING A PROGRAM

Pressing stop button (■) will cause playback to stop: In this case the program stored in memory will not be cleared. To clear the program, press stop button (■) once more.
Press OPEN/EJECT button: When the magazine is ejected, any memorized program will be canceled.

PROGRAMMING DURING PLAYBACK (DIRECT PROGRAM)

Programming can be carried out during normal playback or track HI-LITE SCAN playback.
You can program the tracks while listening to a part of each track.

1. **During playback, press PROGRAM button.**
2. **Whenever a track to be programmed is playing, press PROGRAM button.**
3. **You can repeat step 2 until up to 32 tracks are programmed.**
4. **When finished press Play/Pause button (▶/▮▮).**
   The indicator will then display (for 5 seconds) the total number of steps programmed.

NOTE:
Direct programming is not available during ordinary programmed playback, or random playback.

DELETE PROGRAMMED PLAYBACK

- When tracks that you do not wish to listen to are selected and programmed with this function, the programmed tracks will not be played even when Play/Pause button (▶/▮▮) is pressed and play is started.

1. **Press DELETE button.**
2. **Select a disc number with DISC NUMBER buttons and a track with Manual/Track search button (⏮◀◀, ▶▶⏭).**
3. **Press DELETE button.**
4. **Repeat procedures 2 and 3.**

TO CANCEL DELETE PROGRAMMED PLAYBACK

Pressing stop button (■) will cause playback to stop: In this case the program stored in memory will not be cleared. To clear the program, press stop button (■) once more.
Press OPEN/EJECT button: When the magazine is ejected, any memorized program will be canceled.

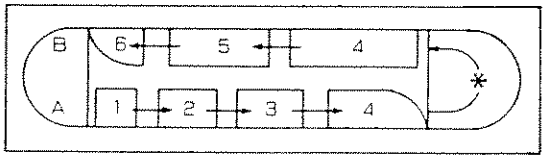
A.S.E.S. (Auto Synchro Editing System)

For automatic recording of a CD to a cassette tape. With this function, the CD player searches for the peak level on the loaded disc (this requires about one minute on a 12 cm CD recorded with 60 minutes of program). The cassette deck then automatically adjusts the recording level of the deck, and A.S.E.S. recording begins. Recording always starts in the forward direction (▶). Note that recording cannot be performed on the "leader" portion (about the first ten seconds) of a tape.

- When performing A.S.E.S. operation on the CD player use magazine trays 1 and 2.
- In the A.S.E.S. mode, tracks are recorded with a blank portion of approximately 5 seconds between tracks (except for DISCO EDIT).

A, B: Indicates the side of the tape.
1—6: Indicates the number of the track.
* : Indicates the leader part of the tape.

FADE EDIT



When this function is used, the recording will fade out at the tape's end. Any track being recorded at the end of side A will be recorded at the beginning of side B.

FINE EDIT

Use the CD player's the EDIT button.

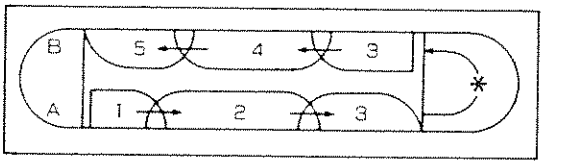
- **COMPU PGM**

The recording order of the selected tracks will be rearranged in order to allow the largest possible number of tracks to be recorded within the specified time.

- **Specifying the tape length automatically**

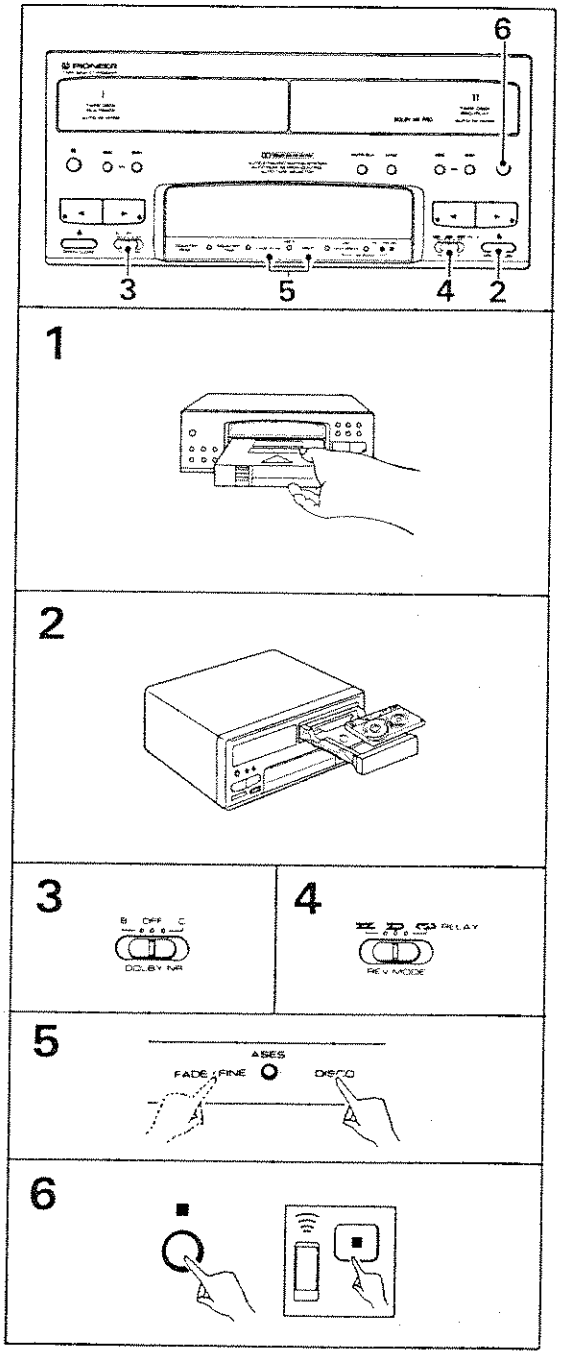
The internal computer will program all the tracks on the disc, and indicate the minimum length tape capable of recording all tracks.
Select from one of the following tape lengths:
46 minutes, 60 minutes, 90 minutes.

DISCO EDIT



Using this function, transition between tracks is performed while using "cross fade" (the end of the current track fades out while the beginning of the next track simultaneously fades in). At the final end of the tape, the sound fades out in the same way as for FADE EDIT.

- If the CD player section is operating in a programmed mode, then A.S.E.S. proceeds with the programmed track order (EDIT).



USING THE FADE EDIT OR DISCO EDIT

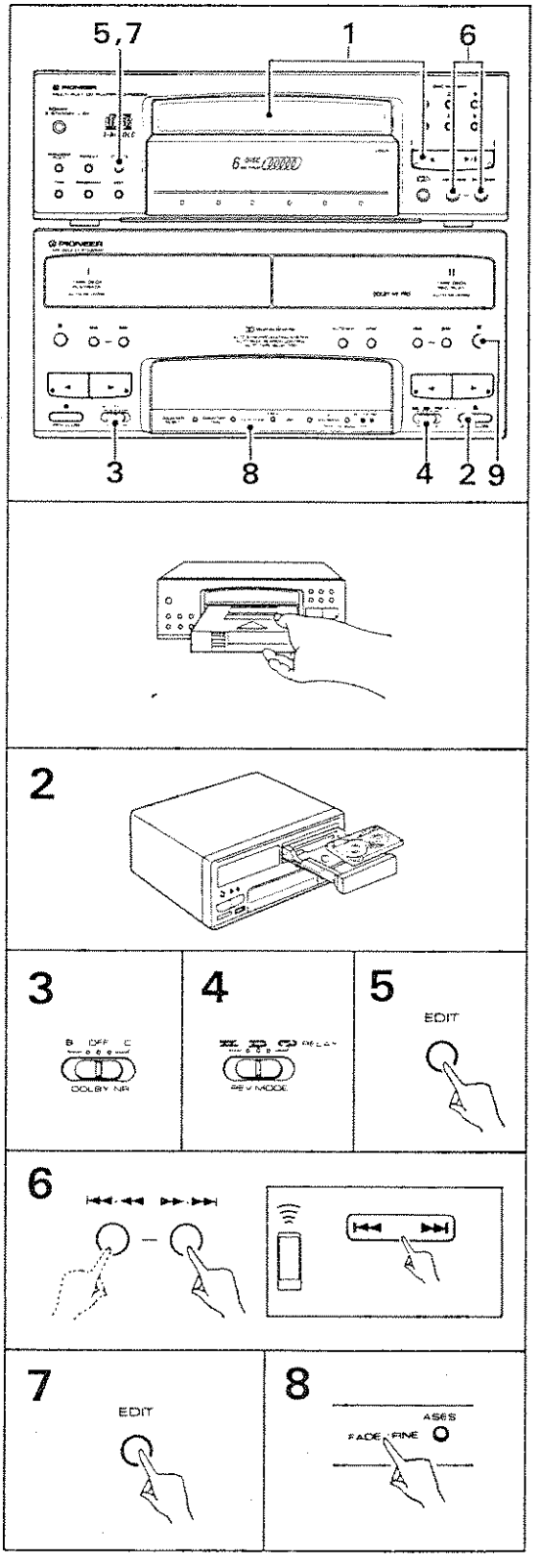
1. **Set a magazine in the CD player.**
   - When performing A.S.E.S. operation, load discs into magazine trays 1 and 2.
2. **Load a tape for recording into Deck II.**
   Since recording always starts from the forward direction (▶), be sure that the tape is loaded properly.
3. **Set the DOLBY NR switch to the desired position.**
4. **Select the REV MODE switch.**
   ⇄ : For recording on only one side of a tape.
   ⇉ or ⇆ : For consecutive recording on both sides of a tape.
5. **Press the ASES buttons (FADE/FINE or DISCO).**
6. **To stop A.S.E.S. operation, press the stop button (■) of Deck II. Otherwise press the stop button (■) of the CD player.**

■ LINK A.S.E.S. (DISCO, FADE EDIT only)

If extra tape remains after you have completed your edit recording session, the CD can be changed and A.S.E.S. recording continued.
After 1 – 5 is performed, the A.S.E.S. will be temporarily terminated.

6'. **Press the REC PAUSE button (● ❚❚).**
Deck II will enter the recording standby mode.
The play button's indicator will flash. Recording will begin in the direction indicated by the flashing.

7. **Load another CD.**
8. **Press the ASES button (DISCO or FADE/FINE) to begin linked A.S.E.S. recording.**
During normal use of the A.S.E.S. function, a non-recorded blank section will be created in the first ten seconds of the tape; if the A.S.E.S. button is pressed when the unit is in the recording standby mode, however, the following operations will take place:
   - If the FADE/FINE button is pressed, the 10-second non-recorded blank section will not be created.
   - If the DISCO button is pressed, the tape will be rewound and the cross-fade recording mode will be selected.



USING THE FINE EDIT

COMPU PGM

- The COMPU PGM function may not operate properly with discs that include 24 or more tracks.

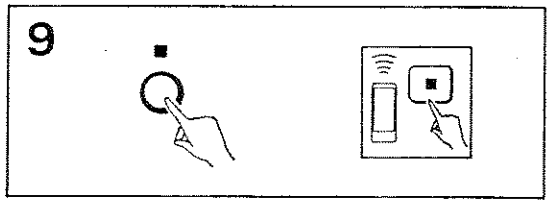
1. **Set a magazine in the CD player.**
   - When using the CD player, load discs into magazine trays 1 and 2.
2. **Load a tape for recording into Deck II.**
   Since recording always starts from the forward direction (▶), be sure that the tape is loaded properly.
3. **Set the DOLBY NR switch to the desired position.**
4. **Select the REV MODE switch.**
   ⇄ : For recording on only one side of a tape.
   ⇉ or ⇆ : For consecutive recording on both sides of a tape.
5. **Press the EDIT button of the CD player.**
6. **Within 3 seconds, use the Manual/Track search buttons (⏮ ◀◀, ▶▶ ⏭) to designate the tape's recording time.**
   ┌ 46 → 54 → 60 → 74 → 90 ┐ (minutes)
   Tape recording time will change in the above sequence each time the button is pressed.
   - If you wish to designate the tape length in minute intervals, set the remote control unit's CD/TUNER select switch to the CD position, then use the number buttons to specify the tape length (from 1 to 99).
     When specifying 1 to 9, first press 10/0/10. For example, to specify 7 minutes, press 10/0/10, 7.
   - The tape length is automatically specified, three seconds after pressing the EDIT button in step 5. If you wish to perform the COMPU PGM function again, press the stop button (■), then return to step 5.
7. **Press the EDIT button of the CD player.**
   Tracks will be programmed so that all tracks are recorded on sides A and B, and the result will be displayed.
8. **Press the ASES button (FADE/FINE).**
9. **To stop the A.S.E.S.operation, press the stop button (■) of Deck II.**

NOTE:

A.S.E.S. may stop or operate incorrectly when there is a song change near the end of the tape. In such cases use manual operations to record the remaining songs.

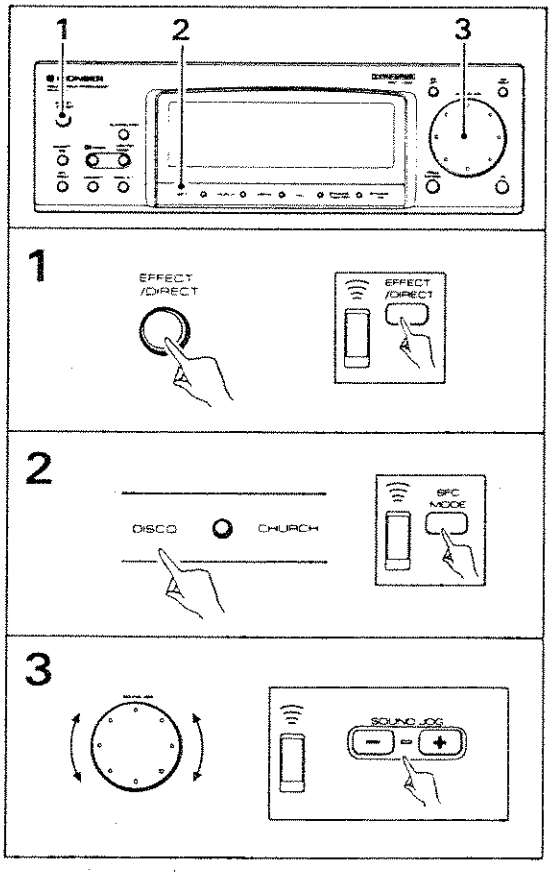
Specifying the tape length automatically

- The CD player programs the disc's tracks, and indicates the minimum length of cassette tape required to record all the tracks.
- This function does not operate in the CD player for compact discs containing more than 24 tracks.
  This function also does not operate on discs which contain a single track greater than 45 minutes.



1. **Load a magazin in the CD player.**
2. **Press the EDIT button one time.**
   The CD player calculates the selection length after three seconds. The shortest tape length that can contain all selections is selected and displayed.
   One of the following tape lengths will be selected and displayed.
   46 minutes, 60 minutes, 90 minutes
3. **Prepare a cassette tape of the proper length, and begin computer program recording by following steps 2, 3, 4, 8 on "COMPU PGM".**

SOUND FIELD CONTROL



DYNAMIC SURROUND

What is Dynamic sound ?

This unit is equipped with a DSP (Digital Signal Processor) surround function which reproduces various sound fields only in the front left and right speakers, and a DOLBY PRO LOGIC surround function, which produces an acoustic effect similar to a movie theater. It also contains a new sound field mode, "Dynamic Theater" which contains DSP surround steering logic (directional emphasis circuits).
Sound is also output from the center speaker in the Dynamic Theater mode.

What is sound field control?

With this function you can choose one of the six sound fields available, and enjoy the sensation of listening to music in different environments.

NOTE:
You can achieve the effect of sound field control by using the front speakers alone, so surround speakers are not required. If surround speakers are connected, however, the effect will be more pronounced.

[SOUND FIELD PROCESSOR: SP-P930]

Select one of the following six sound fields:

① **DISCO:** Creates the sensation of being in a disco, with a lot of reverberation.
② **CHURCH:** Gives you the impression of being in a large church with a pipe organ.
③ **ARENA:** Gives you the sound field of a live rock or pop concert.

④ **HALL:** Gives you the feeling of being at a classical concert.

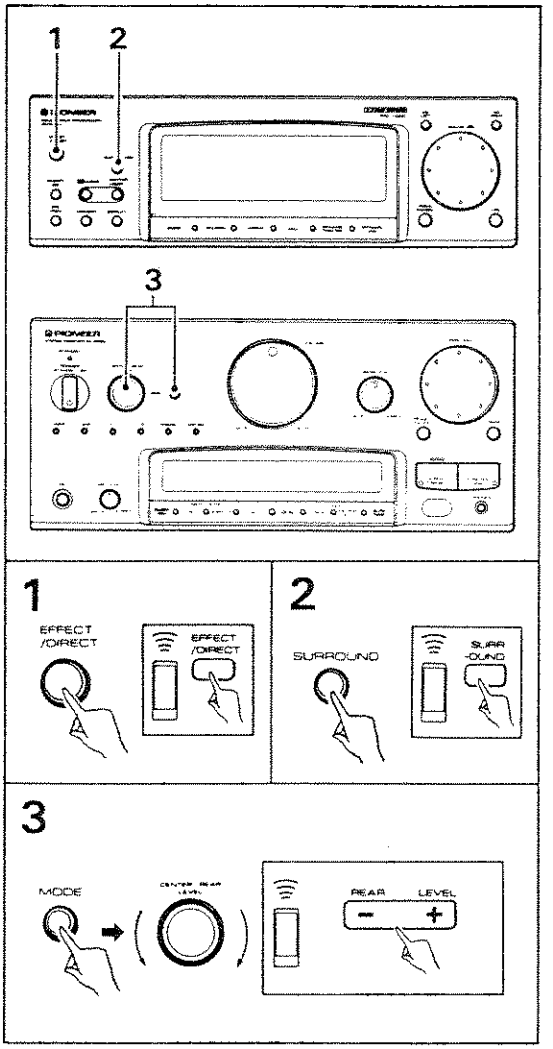
⑤ **DYNAMIC THEATER:** The vocal appears clearly in the middle of a wide sound field. This is appropriate for vocal music or films.

⑥ **DYNAMIC LIVE:** Creates the deep sensation of a mono source.

OPERATION:

1. **This effect is set ON by the EFFECT/DIRECT button.**
2. **Set the effect ON with the sound field mode button.**
   When the remote control is used, each time the sound field button is pressed, one of the settings will be selected in the following order.

   DISCO → CHURCH → ARENA → DYNAMIC LIVE → DYNAMIC THEATER ← HALL ←
3. **The SOUND JOG dial can be used to change the strength of the effects produced.**



SURROUND FUNCTIONS

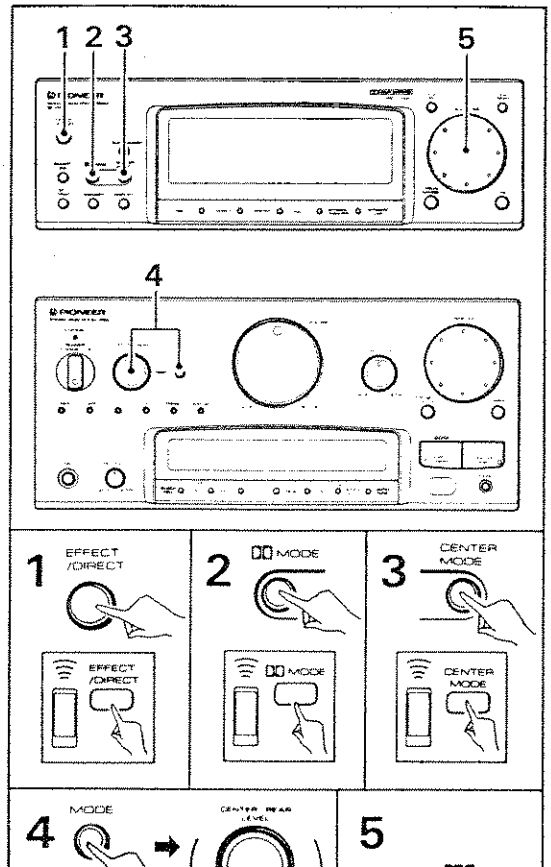
If you have installed surround speakers, you will be treated to sound from both in front and behind, thus creating a more live presence in your playback.

1. **Set the EFFECT/DIRECT button to ON.**
   Adjust the sound field to your preference.
2. **Set the SURROUND button to ON.**
   The SURROUND indicator will light.
   - Each time the SURROUND button is pressed, one of the settings will be selected in the following order.

     Surround ON → Surround OFF
3. **Select the rear level by the receiver MODE selector button.**
   Next adjust the rear surround speaker volume with the rear level adjustment knob.

NOTE

The SURROUND button does not operate when the DOLBY PRO LOGIC or DOLBY 3CH LOGIC are ON.



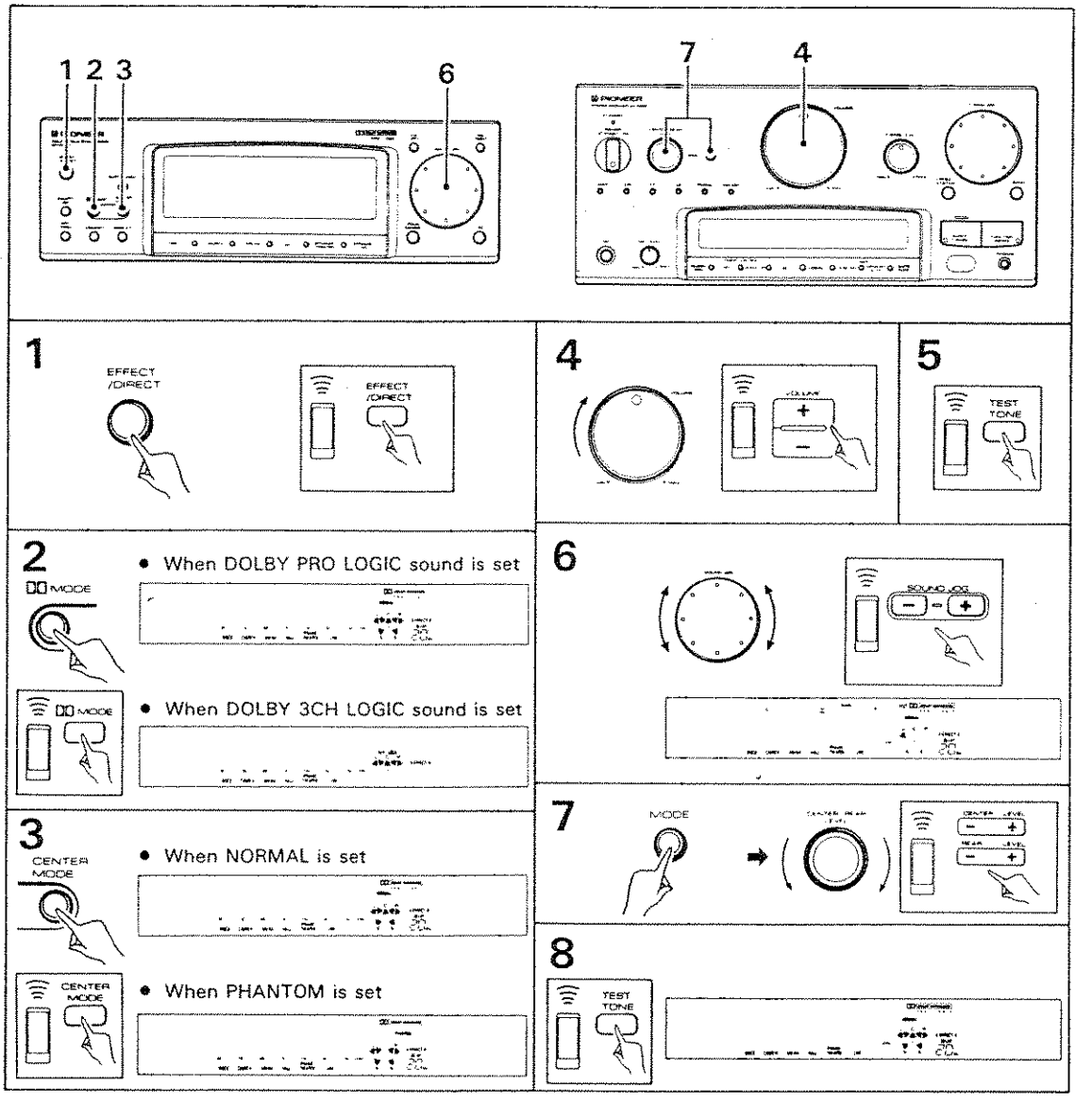
USING DOLBY SURROUND

1. **Turn the EFFECT on with the EFFECT/DIRECT button.**
2. **Press the MODE button and select DOLBY PRO LOGIC or 3CH LOGIC.**
   When DOLBY PRO LOGIC is selected, perform step 3.
   When 3CH LOGIC is selected, perform step 4.
   Each time this button is pressed, one of the settings will be selected in the following order.
   → Pro Logic (PRO LOGIC) → 3ch Logic (3ch LOGIC) → OFF (SFC mode still ON) →
3. **When DOLBY PRO LOGIC is set, use the center mode button to select the center mode.**
   Each time the center mode button is pressed, one of the settings will be selected in the following order.
   → Normal (NORMAL) → Phantom (PHANTOM) →
4. **Select the desired sound volume for the center or rear level.**
   Use the MODE selector button to set the center level or rear level.
   Each time the mode switch button is pressed, one of the settings will be selected in the following order.
   → Center level (CENTER) → Rear level (REAR) →
5. **Use the SOUND JOG dial to adjust the sound arrival time from the speaker.**
   The sound arrival speed can be set from 15 ms to 30 ms in 5 ms increments. As the time increases, the sound from the surround speakers becomes slower than the front speaker sound, and gives the effect that the room size has changed.

NOTE

When DOLBY PRO LOGIC or 3CH LOGIC are set ON, the SMART equalizer, equalizer left, equalizer right, surround, LPS and GEQ button and FLAT button of the remote control do not operate.

DOLBY PRO LOGIC AND 3CH LOGIC ADJUSTMENT PROCEDURES

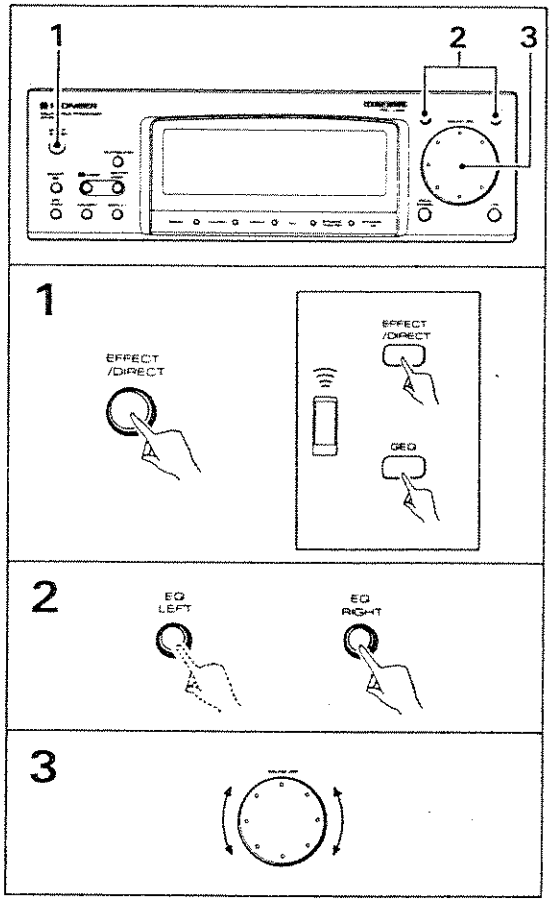


1. **Set the EFFECT to ON with the EFFECT/DIRECT button.**
2. **Press the DD MODE button and select the desired mode.**
   Each time this button is pressed, one of the settings will be selected in the following order.
   Pro Logic (PRO LOGIC) → OFF (SFC mode still ON) ← 3ch Logic (3ch LOGIC) ←
3. **When DOLBY PRO LOGIC is set, press the CENTER MODE button to select the center mode (NORMAL or PHANTOM).**
4. **Use the volume adjustment knob to set the normal volume.**
5. **Press the TEST TONE button on the remote control.**
6. **While listening to the test tone, use the SOUND JOG control to adjust the volume of the front speaker so it is the same level.**
   The speaker indicator rotates.
   - **When DOLBY 3CH LOGIC is set:**
     SPEAKER-S does not light.
   - **When PHANTOM is set:**
     SPEAKER-C does not light.

7. **While listening to the test tone, use the CENTER LEVEL or REAR LEVEL adjustment knob to set the volume of each speaker to the same level.**
   Use the mode switch button, to select the center level or rear level and then adjust the level to the desired setting.
   Each time the mode switch button is pressed, one of the settings will be selected in the following order.
   ┌→ Center level (CENTER) → Rear level (REAR) ─┐

8. **Press the TEST TONE button on the remote control to turn the test tone off.**

   NOTE
   Test tone precautions:
   - *When the DOLBY 3CH LOGIC is set, sound is not output from the surround speakers.*
   - *When the CENTER MODE is set to PHANTOM, sound is not output from the center speaker.*

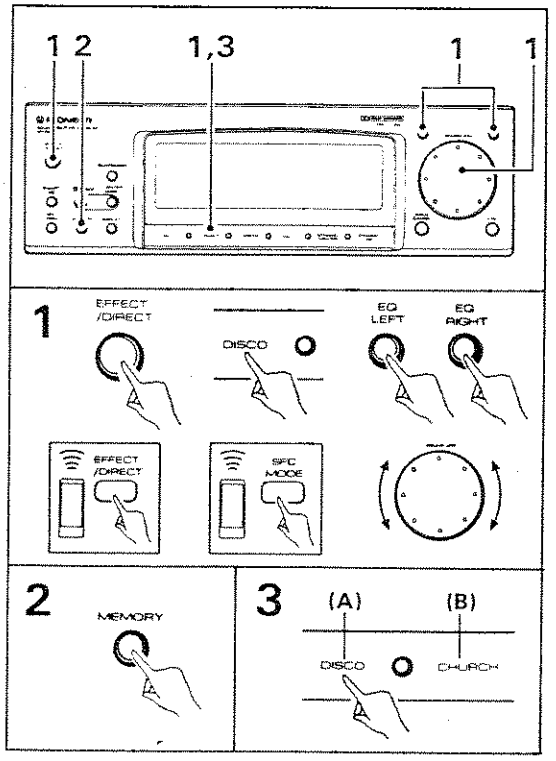


TUNING THE SOUND QUALITY

- The desired sound quality pattern can be created by adjusting the settings.
- Sounds are divided into seven frequency regions and the adjustments can be performed in each range as desired.
- The following seven regions can be adjusted:
  60Hz, 150Hz, 400Hz, 1kHz, 2.4kHz, 6kHz, 15kHz.

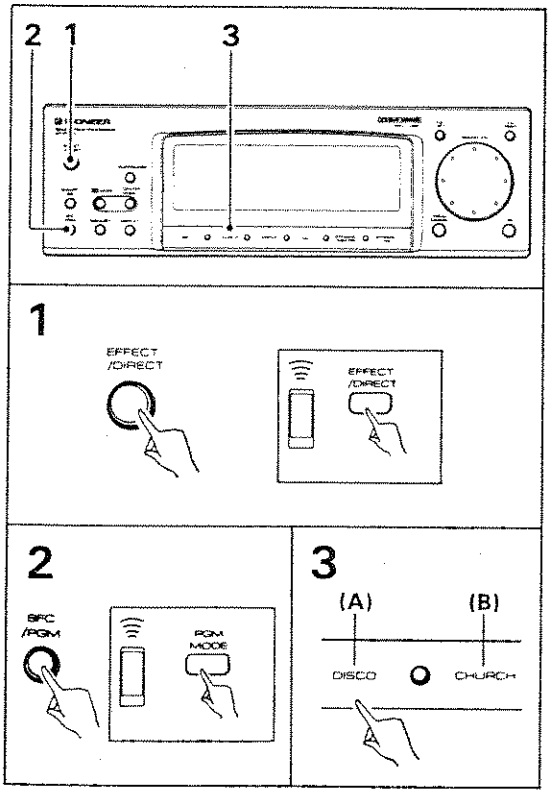
1. **The GEQ indicator lights when the EFFECT/DIRECT button is used.**
   This operation can be performed by the remote control GEQ button.
2. **Use the equalizer left and equalizer right buttons to select the adjusted sound range.**
   The flashing will move to the side.
3. **Use the SOUND JOG dial to adjust the sound quality.**
4. **To adjust the other frequency ranges, repeat steps 2 and 3 as required.**

NOTE
The sound field control cannot be adjusted when DOLBY PRO LOGIC, 3ch LOGIC is set ON or when VOCAL CANCEL is set.



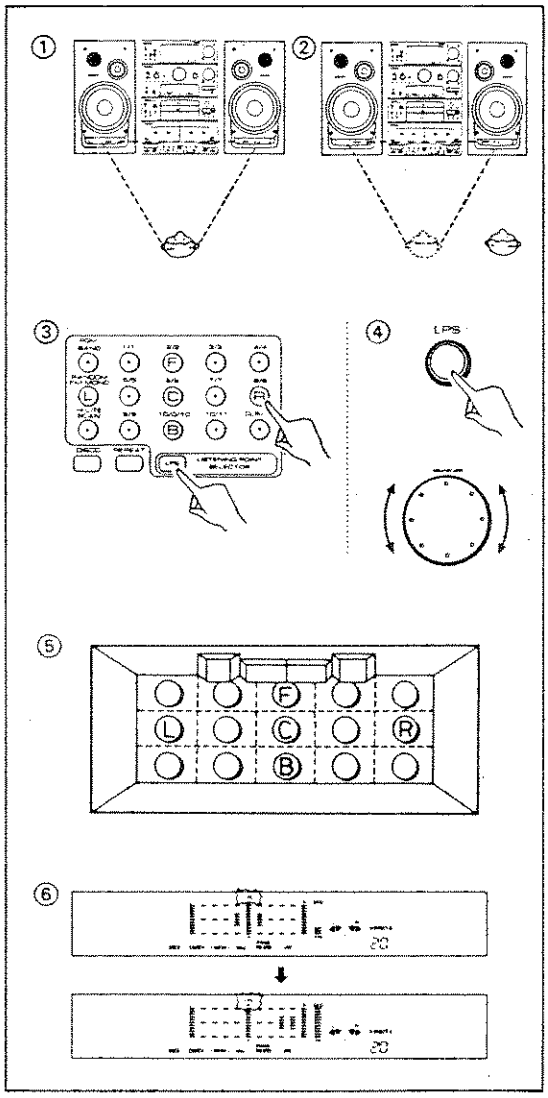
TO MEMORIZE A SOUND FIELD CREATED BY YOURSELF

1. **Create your own desired sound field.**
   See the section on "OPERATION". (See page 42~46.)
2. **Press the MEMORY button.**
   The [PROGRAM] indicator will flash for a period of approx. 5 seconds.
3. **When the program indicator flashes, press the sound field mode button.**
   The sound field mode buttons are arranged from the left side as A, B, C, D, E and F. Press the button to be memorized within five seconds. After five seconds, the sound field function returns.



TO CALL UP A MEMORIZED SOUND FIELD

1. **This effect is set on by the EFFECT/DIRECT button.**
2. **Press the SFC/PGM button and the program indicator will light.**
   When using the remote control, press the PGM button to call the sound field in memory directly.
3. **Press the sound field mode button to call the sound field from memory.**
   - The memorized contents will remain stored in the memory for several days even when the power switch is turned off. In the event of a power-line interruption, the memorized contents will be maintained in memory for a period of several hours.



LPS (Listening Point Selector)

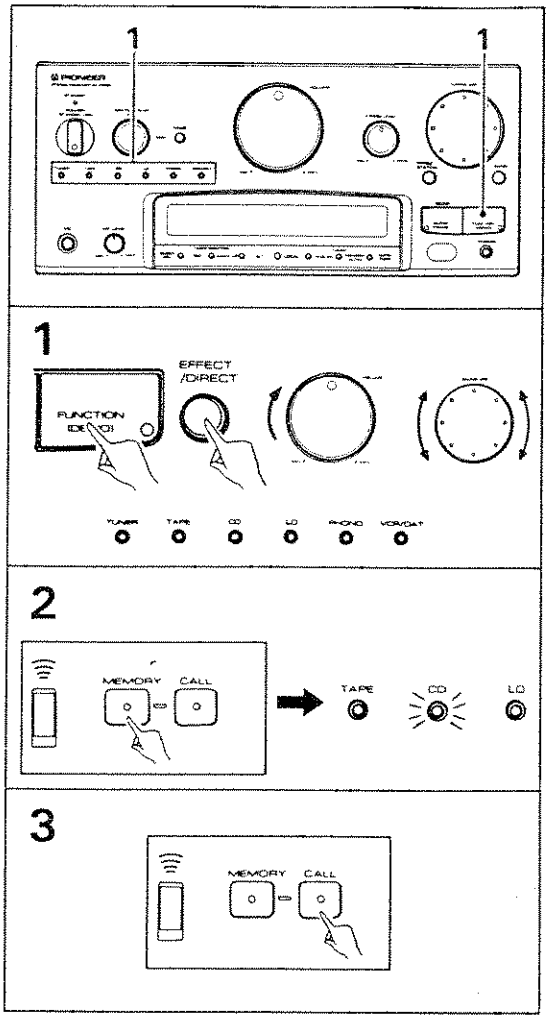
The optimum listening position is generally considered to be at or just behind the apex of an equilateral triangle when the two speakers are placed at the two ends of the triangle's base. When room dimensions or structure do not allow you to maintain the listening position noted above, the LPS (listening point selector) function can be used to create the optimum listening position for your room.

① Optimum listening position.
② For example, however, if you change your listening position to just in front of the right speaker, the stereo effect will be lost.
③ The LPS function is provided to remedy this kind of situation. Using the remote control unit, hold the LPS button depressed and press the number buttons and CD/TUNER operation buttons as described below to designate your present listening position.
If you perform the operation from the main unit, press the sound field processor's LPS button, then within five seconds, rotate the SOUND JOG dial to designate your listening position.
④ This illustration shows the room divided into fifteen positions, overlapped with the remote control's number buttons and tuner operation buttons. Use these illustrations to set the optimum conditions for your listening position.
⑤ The display section indicates which of the positions has been currently set.

NOTE:

- *The LPS effect may not be fully adequate in some cases depending on the room size, speaker position and other factors.*
- *The LPS function does not operate during recording, or when DOLBY PRO LOGIC, 3-CH LOGIC, or VOCAL CANCEL modes have been selected.*

STORING YOUR USUAL LISTENING SETTINGS (SMART OPERATION)



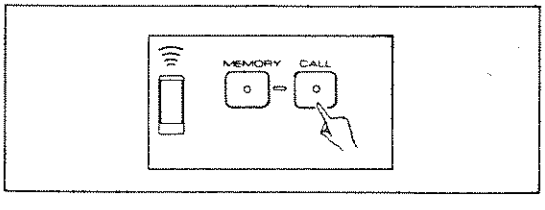
This function memorizes the usual listening setting and reproduces it when a single button is pressed.
To preset desired stations, memorize the desired frequencies in the station call channels.

PROGRAMMED SETTINGS

1. **Select the desired settings to be preset.**
2. **Press the remote control MEMORY button and the function indicator flashes.**
3. **Press the CALL button within 5 seconds to complete the memory operation.**

FUNCTION (DEMO) button

- If this button is pressed when the electrical power is OFF, the demo mode is set and the power is set ON.
  In the demo mode, the variety of functions contained in this system are displayed for each unit.
- When a CD is loaded, the disc performance can be enjoyed at the same time.
- When the DEMO MODE is set OFF, turn the power OFF or press the FUNCTION (DEMO) button on the receiver.



RECALLING THE STORED SETTINGS

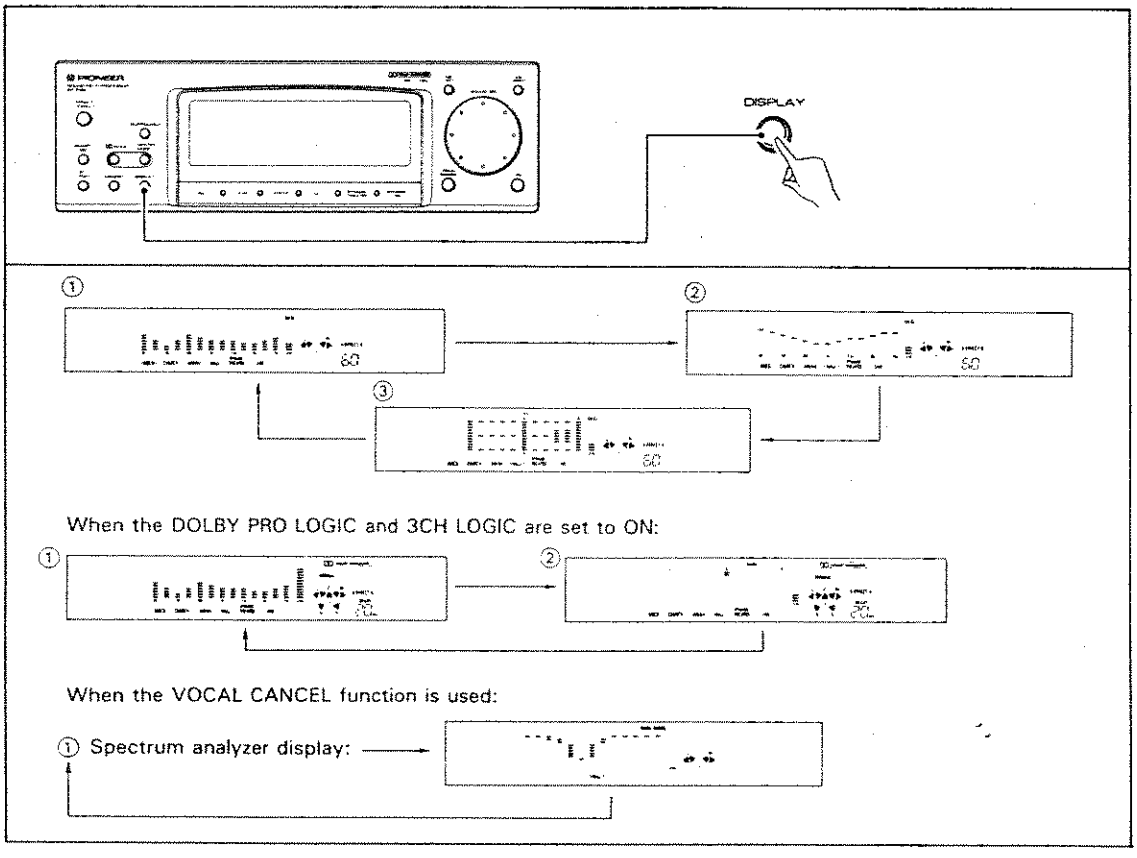
If TAPE has been selected as the source for smart operation, insert a cassette tape. If CD has been selected as the source for smart operation, insert a CD.

Press the CALL button on the remote control.

Smart operation will begin.

- The memorized contents may be erased if the power cord is disconnected from its outlet, or in the event of a power failure.

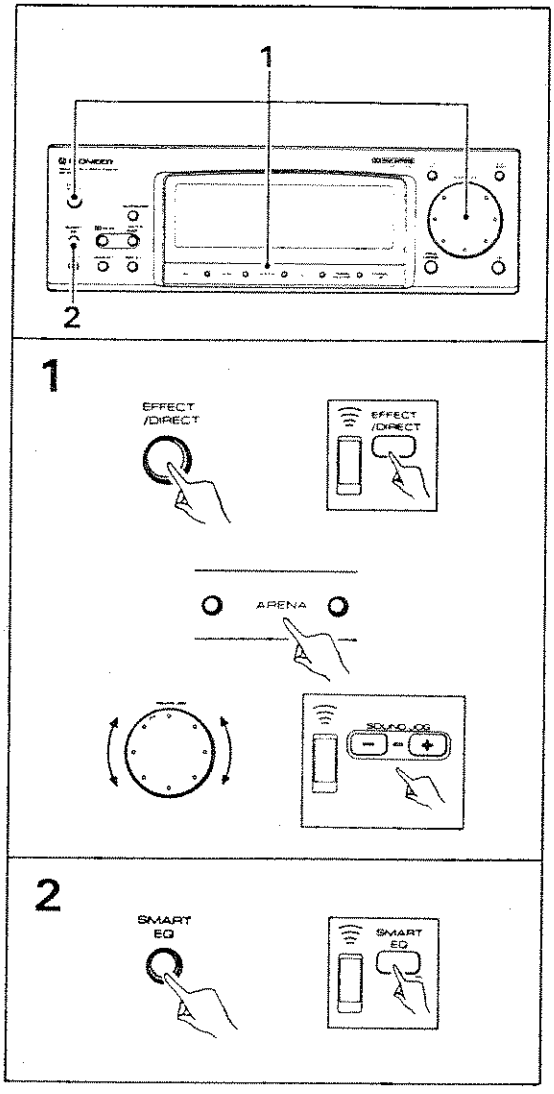
USE THE DISPLAY TO VIEW SOUND CONDITIONS



Each time the DISPLAY button of the sound field processor is pressed, the display changes as noted below:
① Spectrum analyzer display.
② Graphic equalizer display
(If the smart equalizer is turned ON, this will be the smart equalizer display).
③ Listening point selector display.

When the DOLBY PRO LOGIC and 3CH LOGIC are set to ON, the following functions are displayed.
① Spectrum analyzer display
② Front balance display
When the VOCAL CANCEL function is used, the following functions are displayed.
① Spectrum analyzer display
② Vocal cancel display

NOTE
The LPS display and front balance display are not displayed during recording.



SMART EQUALIZER OPERATION

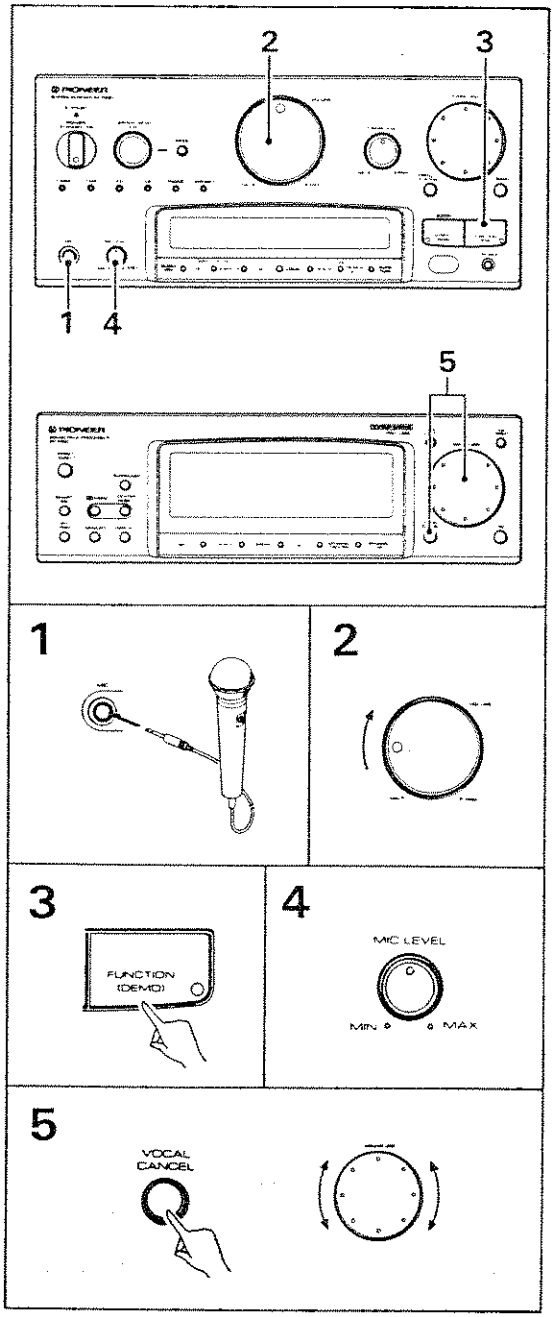
- The smart equalizer function automatically compensates the frequency response in accordance with the sound source playing, in order to allow the effect of the selected sound field to be reproduced with optimum results.

1. **Create your desired sound field.**
2. **Set the SMART EQ button to ON (The SMART EQ display lights.)**
3. **Begin playing back the desired sound source.**
   The smart equalizer function will begin operating; if the selected sound source is not adequately reproduced under the conditions of the selected sound field, the equalizer will automatically compensate the frequency response to permit optimum reproduction.

NOTE:

- *Smart equalizer does not operate when a tape is being recorded, when using the vocal cancel function, or when the DOLBY PRO LOGIC or 3CH LOGIC is set ON.*
- *The smart equalizer function automatically performs compensation in accordance with the music source being played.*
  If no nonrecorded interval is located between tracks, however, or if a track is extremely short, the automatically equalized frequency settings for the previous track may continue during the current track. If you wish to set accurate frequency equalization for such sources, press the SMART EQ button to set it off temporarily, then turn it on again.
- *Any time a silent space continues for about one second or more, the smart equalizer's automatic compensation will be temporarily canceled.*

VOCAL CANCEL



- This function cuts frequencies in the vocal range during playback of a stereo source such as a CD, tape, or FM broadcast. Pressing the VOCAL CANCEL button ON, and singing through a microphone provides an easy way to enjoy karaoke. (Although this function cuts frequencies in the vocal range, it does not completely eliminate the sound of the vocals.) This function has no effect with monaural sources.
- Achieving the full effect of this function may not be possible with songs featuring duets, different vocals on left and right channels, strong echo effects, and other source recording conditions.
- This function is most effective with sources other than tape.
- The vocal cancel function does not operate when DIRECT is set.
- When using the vocal cancel function, only the HALL mode of the sound field control can be turned on and off.

1. **Connect a microphone to the MIC jack.**
2. **Adjust the sound volume as desired.**
3. **Use the FUNCTION button to select the desired sound source.**
4. **Use the MIC LEVEL control to adjust the sound volume of the microphone.**
5. **Begin playback, and press the VOCAL CANCEL button.**
   - The SOUND JOG dial can also be rotated to the position where the vocal element is reduced as much as possible.
6. **Sing into the microphone in accompaniment to the music.**

For microphone mixing recording:

By performing recording on deck II, you can record the results of your microphone mixing. (When playing back the recorded tape, set the VOCAL CANCEL to OFF.) Note, however, that microphone mixing recording cannot be performed when TAPE has been selected in step 3.

NOTE:
Always set the APSC button OFF in the deck during mixing recording.

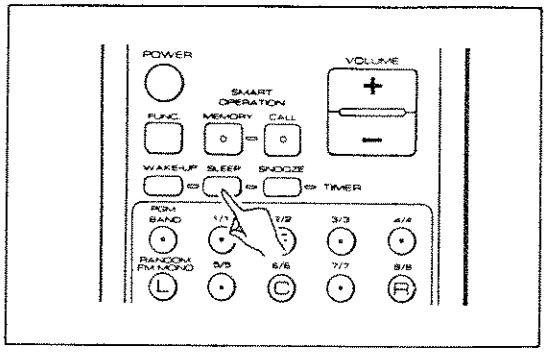
- **If "howling" (microphone feedback) occurs:**
  During use of the microphone, if a high-pitched howling sound comes from the speakers, do one of the following:

① Quickly rotate the microphone level control to the left.
② Place the microphone as far from the speakers as possible.
③ Lower the sound volume.

Sing along within the ambience of a concert hall

- When using the vocal cancel function, if you set the sound field processor's EFFECT/DIRECT button to ON, the sound field control's HALL sound field will be recreated.
- During use of the vocal cancel function, no sound fields or tonal adjustments other than the above can be performed on the sound field processor.

SLEEP TIMER



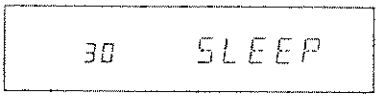
- After the set time has elapsed, the system's power is turned off automatically.
- Settings are performed from the remote control unit.

HOW TO SET THE SLEEP TIMER

Press the remote control unit's SLEEP button.
Each time the button is pressed, the mode changes as follows:

AUTO (Auto sleep) → 90 (90 minutes) → 60 (60 minutes) ← 30 (30 minutes) ← 0 (off)

Example: To set the timer to turn off after 30 minutes:



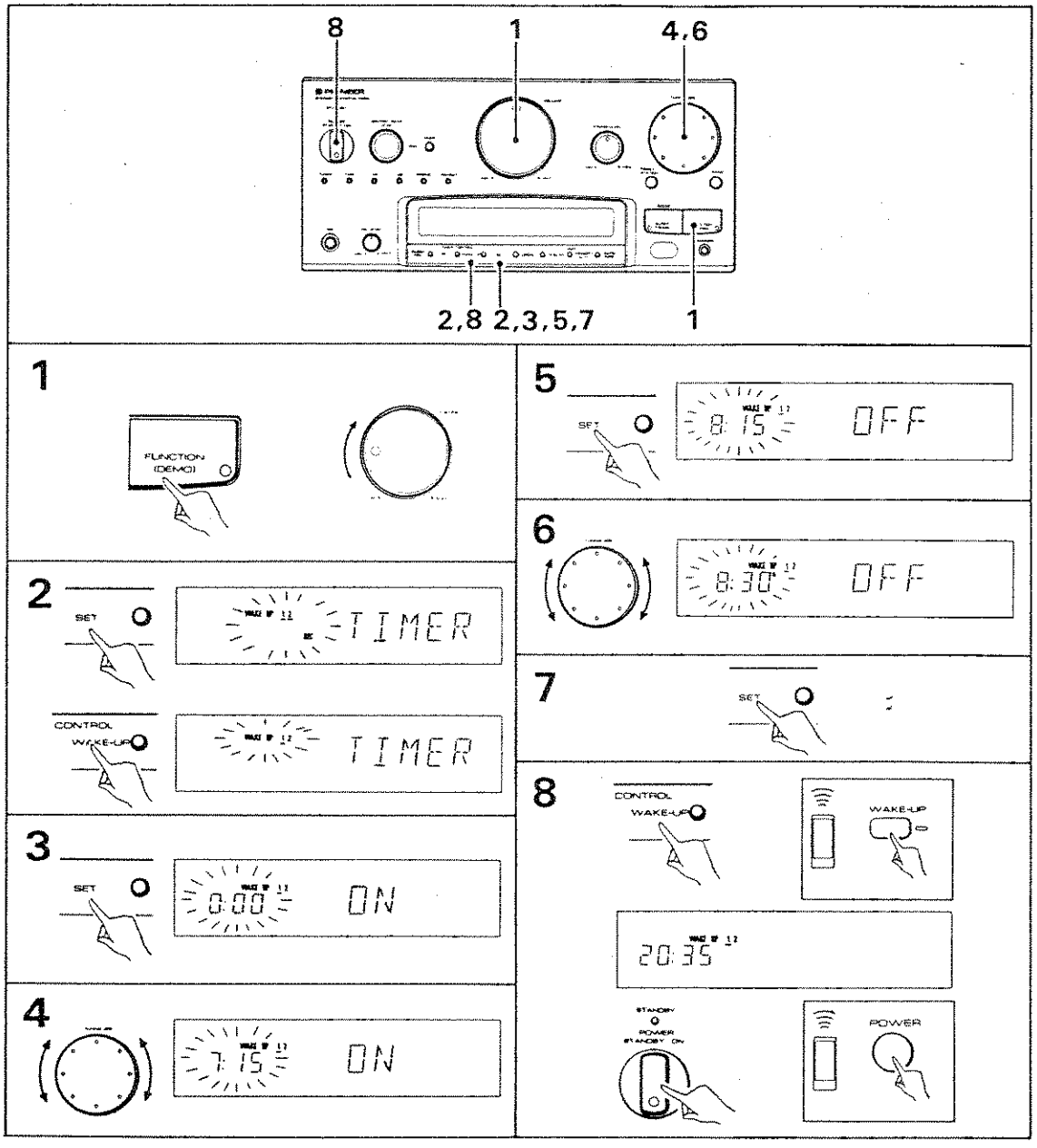
- During sleep timer operation, pressing the SLEEP button will cause the remaining time to be displayed. If the button is then pressed again, the set time will change, so if you do not wish to change the time, do not press the button again.

Auto Sleep:

- If the SLEEP button is pressed to select AUTO during CD playback, or during recording or playback of a cassette tape, the power will turn off automatically when the playback or recording is complete (auto sleep mode).
- The power will not turn off until the operation of CD and tape are all completed (as appropriate).
- If auto sleep is selected during relay playback, the power will turn off when playback is completed on the currently playing deck.

TIMER PLAYBACK

WAKING UP TO YOUR FAVORITE MUSIC (WAKE-UP TIMER)



- Playback will begin and end in accordance with the set times (unless canceled, the same schedule will be followed everyday).
- Two playback timers (wake-up timers) can be set: WAKE-UP 1, WAKE-UP 2.
- Before setting the timer, be sure that the clock is set to the correct current time.

OPERATION

Example: Set WAKE-UP 1 for timer playback from 7:15 to 8:30.

1. **Turn on the power, and set the unit to the playback condition you wish it to start in.**
   - Function:
     To listen to a CD, load a magazine in the player. (insert discs in magazine trays 1 and 2). To listen to the tuner, use the station call function to select the station of your choice.
     To listen to a tape, load a cassette tape (playback will begin from the tape in deck I, in the forward direction ▶).
   - Set the sound volume as desired (set the volume control above the point shown in the accompanying illustration. If the volume is set too low, the sound volume will be raised automatically to this point when timer playback begins).
2. **Press the SET button, and within five seconds press the WAKE-UP button to select either WAKE-UP 1 or WAKE-UP 2.**
   To select WAKE-UP 1: press once.
   To select WAKE-UP 2: press twice.
   - Use the line underneath the numerals to select.
3. **Press the SET button.**
   This will select the starting time set mode.
4. **Rotate the TUNING JOG control to set the desired starting time.**
5. **Press the SET button.**
   This will select the end time set mode.
   - The display will automatically show a time one hour after the selected starting time. If you wish to change to another end time, perform step 6.
6. **Rotate the TUNING JOG control to set the desired ending time.**
7. **Press the SET button.**
   This completes all settings.
   - The normal display returns if the starting time, ending time or other functions (band, station call number and frequency when using the tuner) are displayed.
8. **To activate the timer:**
   Select either WAKE-UP 1 or WAKE-UP 2.
   If the power is currently turned on, turn it off.
   - Use the line underneath the numerals to select.

- Timer playback is not possible if the WAKE-UP button is used to cancel both WAKE-UP 1 and 2. Since the setting contents are stored in memory, the wake-up timer playback can be activated by later selecting either WAKE-UP 1 or 2.
- When using the timer playback function, if the selected function features have not actually been set (for example, if a CD or cassette tape has not actually been loaded when one of those sources has been selected, or if the TUNED indicator does not light at the selected frequency when the tuner source is selected), the audio function will search for a source that can produce sound and switch automatically to that source.

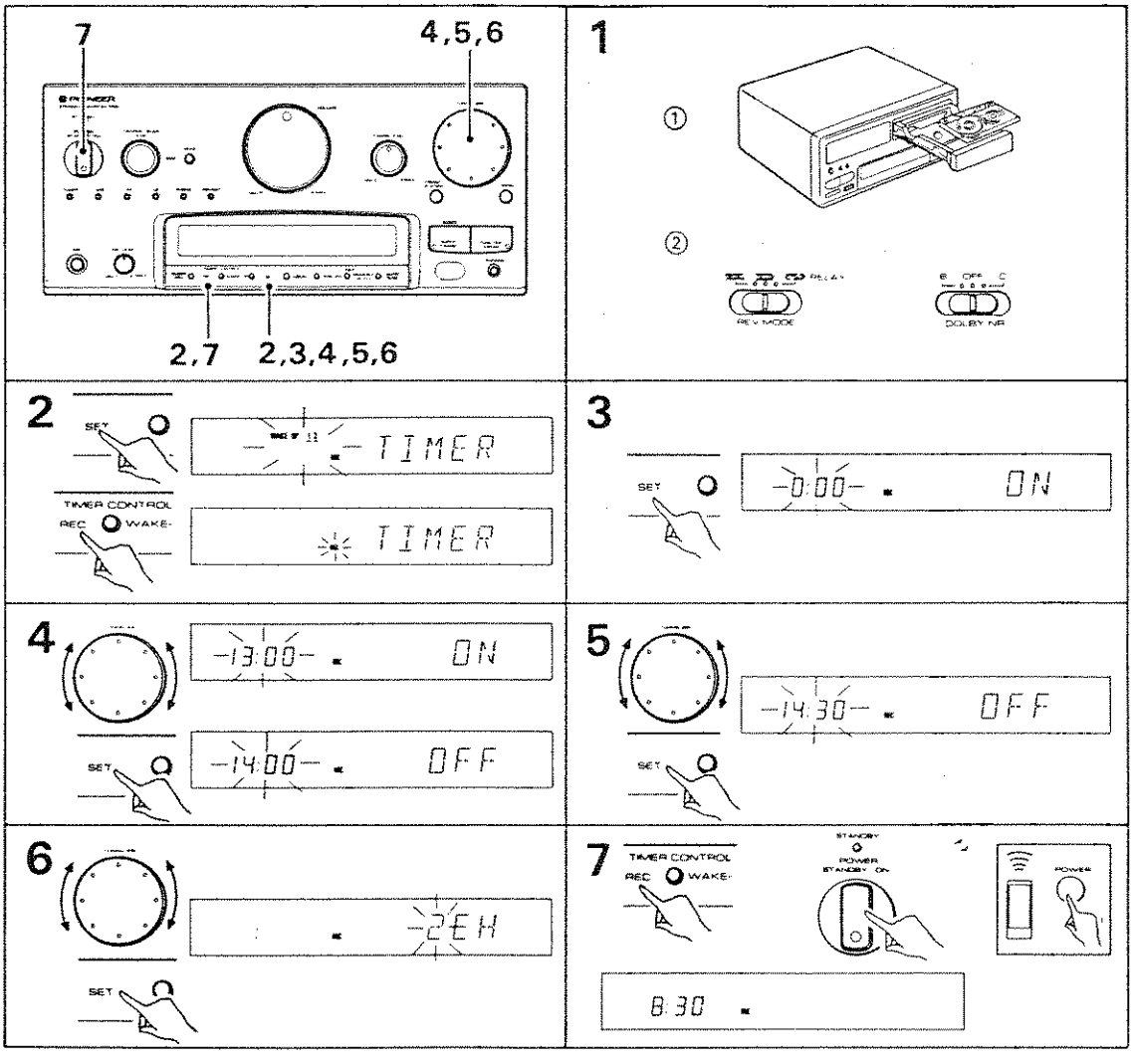
"LET ME SLEEP FIVE MORE MINUTES" (SNOOZE)

- If the remote control unit's SNOOZE button is pressed after the timer playback begins, the power will turn off, and then turn on again five minutes later. This allows you to use the function as a gentle alarm clock, turning it off when desired for a bit more sleep.
- The snooze function can be enabled only when at least five minutes remains in the timer playback time period.
- If less than five minutes of playback time has been initially set for timer playback, or if less than five minutes of playback time remains, the power will remain off permanently.

After timer playback begins, press the SNOOZE button.

- Timer playback will temporarily turn off, and recommence five minutes later.

TIMER RECORDING



- This function allows you to set your unit to turn on and record FM and AM radio without intervention from you. This makes it perfect for recording late-night programs, or for recording while you are away from home.
- Before setting the timer, be sure that the clock is set to the correct current time.

OPERATION

Example: To record the radio station stored in channel 2, beginning at 13:00 and ending at 14:30.

1. Prepare the tape deck for recording.

- **When recording onto cassette tape:**

① Load a cassette tape into deck II.
Recording will begin from the forward (▶) direction.

- Be sure to confirm that the tape cassette's accidental erasure prevention tab has not been broken out.
- Forward the tape beyond its leader onto the portion with magnetic coating.

② Set the REV MODE switch and DOLBY NR switch.
⇄ : To record only one side.
⇉ or ⇆ : To record both sides.

2. **Press the SET button, and within five seconds, press the REC button.**
   This will select the recording start-time set mode. Set the desired starting time.
3. **Press the SET button.**
4. **Rotate the TUNING JOG control to set the desired recording start time, then press the SET button again.**
   - The stop time setting mode is selected.
     A stop time setting, which indicates one hour after the starting time, is set automatically.
5. **Rotate the TUNING JOG control to set the desired recording stop time, and press the SET button again.**
   - The recording source setting mode is selected.
6. **Rotate the TUNING JOG control to select the broadcasting station you wish to record and press the SET button.**
   - This completes the settings. The check mode is automatically selected, and the set contents are displayed.
7. **To activate the timer:**
   Press the REC button so that the REC indicator lights.
   If the power is currently turned on, turn it off.
   - During timer recording the APSC function does not operate.
   - When the timer recording begins, the timer mode is canceled (the REC indicator goes out), but the setting contents remain stored in memory, and can be used later by pressing the timer REC button again (confirm that the REC indicator lights).

To change the timer setting contents:

- To change the contents, input the settings from the beginning once again.

If you make a mistake while making a setting:

- Complete all the setting items once, then go back to the beginning and input them again correctly.

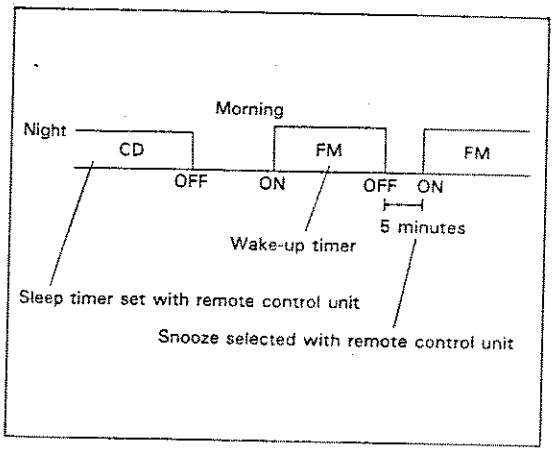
To confirm the timer setting contents:

① Press the SET button.
② To confirm WAKE-UP 1 or 2 settings, press the WAKE-UP button once or twice respectively to select one of the settings. To confirm timer recording settings, press the REC button.
After about five seconds, the check mode will automatically display the timer contents.

TO USE THE TIMER FUNCTIONS TOGETHER

To combine sleep timer and timer playback:

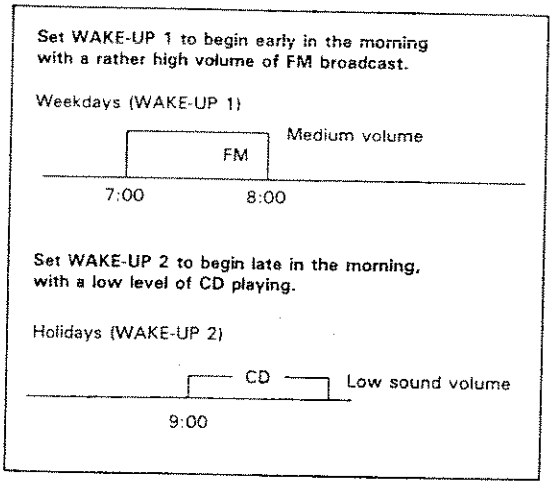
Example: To go to sleep while listening to a CD, then wake up to an FM broadcast.



Using WAKE-UP 1 and WAKE-UP 2 settings separately:

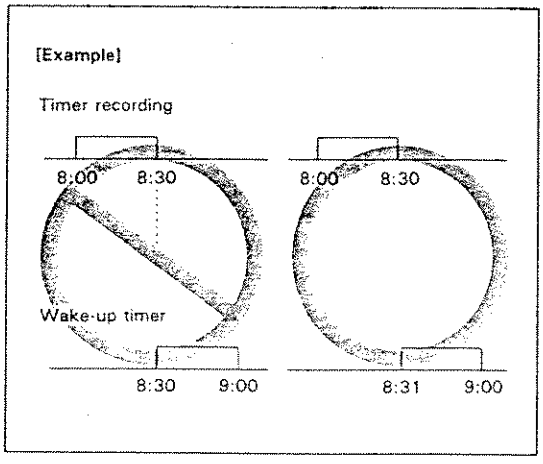
Example: On weekdays, using the WAKE-UP 1 settings, while using WAKE-UP 2 on holidays.

- WAKE-UP 1 and WAKE-UP 2 cannot be set simultaneously.


Set WAKE-UP 1 to begin early in the morning with a rather high volume of FM broadcast.
Weekdays (WAKE-UP 1)
FM
Medium volume
7:00
8:00
Set WAKE-UP 2 to begin late in the morning, with a low level of CD playing.
Holidays (WAKE-UP 2)
CD
Low sound volume
9:00

TIMER RECORDING

Combining wake-up timer and timer recording:
When the wake-up timer and timer recording are set to operate sequentially, at least one minute interval must be left between the two settings.
If no interval is left between the two settings, the timer setting which comes later may not operate properly.



- If multiple timer operation settings overlap, the previously set timer setting will be given priority, and the later setting will not function.
- If multiple timer starting times overlap, operating priority will be in the order REC, WAKE-UP 1, or WAKE-UP 2.
- If the sleep timer is set to operate during another timer setting, the sleep timer's stop setting will be given priority over the other timer operations.

MAINTENANCE

DEMAGNETIZING THE CASSETE DECK HEADS

The deck heads may become magnetized after the deck has been used for a long period of time, or if a magnet or other magnetized object (screwdriver, etc.) is brought near the heads. Magnetization of the heads results in increased noise and reduced ability to reproduce high-frequency sounds.
In this case, please use a commercially available head demagnetizer at regular intervals to eliminate the magnetic field on the heads. When using a head demagnetizer, turn this unit's power switch ON. In order to prevent adverse effects on the receiver and speakers, however, **be sure to turn down the receiver's volume control to its lowest position**, and disconnect any headphones from their headphones jack. For details, consult the instructions accompanying your head demagnetizer.

MAINTENANCE OF EXTERNAL SURFACES

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surfaces are very dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleaners.
- Never use thinners, benzine, insecticide sprays and other chemicals on or near this unit, since these will corrode the surfaces.

TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used.
If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Cause	Remedy
No power is supplied, even when power switch is turned on.	• Power plug is disconnected from wall socket. • Connection cables are not connected correctly.	• Connect the plug correctly. • Consult the preparation and connection sections of your operating instructions and connect correctly.
No sound.	• Speaker wires, connection cables are disconnected from their terminals. • The receiver's function is not set properly.	• Consult the preparation and connection sections of your operating instructions and connect correctly. • Set to the music source you wish to hear.
CASSETTE TAPE		
The cassette tray doesn't open.	• Power was turned off.	• Turn on power again, then press the OPEN/CLOSE button (⏏).
Can't record.	• The tape cassette's accidental erasure prevention tab has been broken out.	• Either replace the tape cassette, or place a piece of adhesive tape over the tab hole.
The sound is muddy. When rerecording over a previously recorded tape, the sound of the previous recording remains audible.	• Heads are dirty.	• Clean the heads.
Sound is muddy, high-frequency sounds are too strong.	• The DOLBY NR switch is set at a position different from that used during recording.	• Try changing the position of the DOLBY NR switch.
The music search (MS) function doesn't work.	• You are using a tape without minimum 4-second non-recorded intervals between tracks.	• Use a tape with silent intervals of at least 4 seconds between tracks.

Symptom	Cause	Remedy
RADIO BROADCASTS		
Broadcasts are inaudible or hard to hear.	• The antenna isn't connected. • The antenna's orientation is incorrect. • You are using other electrical appliances (fluorescent lamps, dryer, etc.).	• Connect an antenna correctly. • Adjust the direction of the antenna. • Stop using the appliances causing the interference.
The broadcast is in stereo, but the receiver plays it in mono.	• The MONO indicator is lighted in the receiver's display.	• Use the remote control unit to press the FM MONO/RANDOM button so that the MONO indicator goes out.
OTHER		
The timer doesn't operate.	• The current clock time hasn't been set.	• Set the current time properly.
The remote control unit doesn't work.	• The remote control unit's batteries are dead. • A fluorescent lamp is shining too close to the remote signal receiver.	• Insert new batteries. • Move the fluorescent lamp away.
The sound field processor (sound image controller) doesn't work.	• The EFFECT/DIRECT button has been set to OFF.	• Press the EFFECT/DIRECT button to ON.
When using the vocal cancel function with microphone mixing, distorted sound is recorded.	• The cassette deck's APSC button is set to ON.	• Set the APSC button to OFF.
Random noise is heard when the microphone is used with the vocal cancel function or other functions.	• Electrical appliances (fluorescent light, hair drier, etc.) are used.	• Stop using the equipment that produces the random noise.

Symptom	Cause	Remedy
COMPACT DISC PLAYER		
Play stops immediately after play/pause button (▶/❚❚) is pressed.	• The disc has been loaded upside down.	• Load the disc correctly with label side down.
No sound.	• Player is in pause mode. • The stereo receiver is not being operated correctly.	• Press play/pause button (▶/❚❚). • Check the settings of the receiver's input selector and VOLUME controls.
Sound is distorted, or noise is produced.	• Interference is being received from a nearby television set.	• Turn off the television, or move the television farther away from the CD player.
During playback the playback pauses or stops.	• The disc has dirt or smudges on it.	• Clean the disc.
A great deal of noise is produced when playing a certain CD, or the playback is interrupted and stopped.	• The disc has a large scratch or warp. • The disc is severely soiled.	• Replace the disc. • Clean the disc.
Magazine is not expelled when OPEN/EJECT button is pressed.	• Power is turned off.	• Press the POWER switch to turn on power.

- If your system is installed very near a television set, the television's picture may be distorted. This may occur with particular frequency when using an indoor antenna. If it does, either switch to an outdoor antenna, or move your television set farther away from the audio system.
- This system may on occasion fail to operate properly due to lightning, atmospheric static electricity, or other external causes. In such cases, turn the power switch briefly OFF then ON again, or disconnect the power cord from its socket temporarily and then reconnect it.
- Tapes longer than C-90 are quite thin and easily jam in the pinch roller and capstan and may also cause irregular winding. Do not use them in this unit. Use tapes of 90 minutes or less.

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

SPECIFICATIONS

STEREO RECEIVER: SX-P930

Amplifier Section

- Front amplifier

Continuously Average Power Output is 40 Watts* per channel, min., at 8 ohms from 40 Hertz to 17,000 Hertz, with no more than 0.9% total harmonic distortion

* Measured pursuant to the Federal Trade Commission's Trade Regulation rules on Power Output Claims for Amplifiers

Continuous power output (RMS) ..... 57 W + 57 W
(1 kHz, T.H.D 5%, 8 ohms)
Music power (DIN) ..... 80 W + 80 W
Peak music power ..... 550 W
Total harmonic distortion,
1 kHz, 25 W, 8 ohms 0.1%*

- Rear amplifier

Continuous power output (RMS) ..... 12 W
(1 kHz, T.H.D 5%, 16 ohms, two speakers in use)

- Center amplifier

Continuous power output (RMS) ..... 12 W
(1 kHz, T.H.D 5%, 8 ohms)

Electrical Section, Other

Power requirements
Round 2-pin AC plug model ..... AC 110/120/220/240 V (switchable), 50/60 Hz
Flat blade 2-pin AC plug model ..... AC 110/120-127/220/240 V (switchable), 50/60 HZ
Power consumption ..... 313 W
External dimensions .....
260 (W) × 117 (H) × 264 (D) mm
Weight ..... 5.5 kg
* Measured with audio spectrum analyzer.

FM Tuner Section

Reception frequency range ..... 87.5—108.0 MHz
Usable Sensitivity (IHF) ..... MONO: 12.8 dBf (1.2 μV/75 ohms)
Sensitivity (DIN)
MONO (S/N 26 dB) ..... 1 μV/75 ohms
STEREO (S/N 46 dB) ..... 50 μV/75 ohms
Signal-to-Noise Ratio
(IHF, 85 dBf Input) ..... MONO: 77 dB
Signal-to-Noise Ratio (DIN) ..... MONO: 66 dB
STEREO: 60 dB
Distortion ..... STEREO: 0.5%, 1 kHz
Antenna input ..... 75 ohms unbalanced

AM Tuner Section

Frequency range
With 9 kHz step ..... 531 kHz to 1,602 kHz
With 10 kHz step ..... 530 kHz to 1,700 kHz
Sensitivity (IHF, Loop antenna) ..... 350 μV/m
Antenna ..... Loop Antenna

SOUND FIELD PROCESSOR: SP-P930

Central frequencies ..... 60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz
Maximum range of variation ..... ±7.5 dB

Spectrum Analyzer Section

Central frequencies ..... 60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz
External dimensions .....
260 (W) × 84 (H) × 246 (D) mm
Weight ..... 2.2 kg

DOUBLE CASSETTE DECK: CT-P1030WR

Tracks ..... 4-track, 2-channel stereo
Playback head ..... Hard permaloy (×1)
Recording/Playback head ..... Hard permaloy (×1)
Erasing head ..... Ferrite (×1)
Motor ..... DC servo 2-speed capstan motor (×2)
DC reel motors (×2)
DC loading motors (×2)
Wow and flutter ..... 0.06% (WRMS)
Rewind/Fast forward time ..... about 90 seconds (with C-60 tape)
Frequency response:
TYPE IV (metal) tape ... 35 Hz—16,000 Hz ±6 dB (recorded at −20 dB).
TYPE II (high/CrO_2) tape ..... 35 Hz—15,000 Hz ±6 dB (recorded at −20 dB).
TYPE I (normal) tape ... 35 Hz—14,000 Hz ±6 dB (recorded at −20 dB).
S/N ratio ..... 56 dB

- With Dolby B type NR ON ..... 10 dB improvement at 5 kHz.
- With Dolby C type NR ON ..... 19 dB improvement at 5 kHz.

Other

Dimensions ..... 260 (W) × 117 (H) × 241.5 (D) mm
Weight ..... 3.6 kg

MULTI COMPACT DISC PLAYER: PD-P930M

Type ..... Compact disc digital audio system
Discs used ..... Compact disc
Frequency response ..... 4 Hz to 20 kHz
Number of channels ..... 2 channels (stereo)
Dimensions ..... 260 (W) × 84 (H) × 285 (D) mm
Weight ..... 3.0 kg

NOTE:

The specifications and design of this product are subject to change without notice, due to improvements.

SPEAKER SYSTEM: S-P930V

Enclosure ..... Book-shelf style, bass reflex
System ..... 3-way 3-speaker system
Loudspeakers:
  Woofer ..... 18 cm cone type
  Mid-range ..... 6.6 cm cone type
  Tweeter ..... 2.5 cm dome type
Nominal impedance ..... 8 ohms
Frequency range ..... 40—20,000 Hz
Sensitivity ..... 90 dB/W at 1 m distance
Maximum power ..... 50 W
Dimensions ..... 220 (W) × 400 (H) × 313 (D) mm
Weight ..... 6.0 kg

• S-P930 is magnetically shielded type.

ACCESSORIES:

Operating Instructions 1
FM T-type antenna 1
AM loop antenna 1
System cable 1
Remote control unit 1
Batteries 2
Speaker cord (included with speaker section) 2
Six-compact disc magazine 1

NOTE:

The specifications and design of this product are subject to change without notice, due to improvements.